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THE

Philosophy of History

BY

S. S. HEBBERD

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PREFACE

ALTHOUGH the first edition of this book was favorably received, I soon began to feel that there was a certain obscurity and incompleteness in its argument. Six more years of study have shown me the source of the trouble, and at the same time wonderfully widened my vision of the great truth which I had been so long striving to comprehend and prove. Therefore this new edition is really a new book. The fundamental thesis remains the same, but the demonstration thereof differs as noon-day from early dawn.

Undoubtedly the book is heavily handicapped by the very grandeur of its pretensions. It claims to solve moral and social problems universally recognized as the most momentous within the range of thought, but which have so long baffled all inquiry that to-day they are almost given up in despair. And the question naturally arises: How has it happened that a solution so simple and clear as that here given should have been so long overlooked?

I answer that the genius of Hume, by reducing causality to mere sequence, closed up the only true path of philosophic inquiry for nearly two centuries. Kant, with his doctrine of illusionism, merely doubled the

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barricade. Then physical science, seeking only to predict, not to explain, soon found that the theory of invariable sequence would answer its special purpose. Thus the concept of causality fell under taboo; it was certainly clouded with many ambiguities, and perhaps was altogether mythical. And yet, as this book will prove, in the comprehension of that concept lies the key to all the chief problems of philosophy. But modern philosophy, unable to answer Hume, has cast the key aside. That is the reason why these great problems have gone so long unsolved.

Already the acutest critics are awakening to this fact. Thus Prof. Colvin has recently said[1] that if metaphysics "ever succeeds in adding anything worthy of knowledge it must accept the fact that knowledge is knowledge in relation and that relation finds its sole content in the causal law."

Furthermore, this book seems to also solve that social problem which now is vexing mankind as never before. For it proves from the experience of all ages that labor, when left free and untrammeled in the exercise of its rightful powers, tends always to unity. And that industrial unity, once fully attained, will soon put an end to the strife, the fraud and savagery of our modern life.

But despite these grand pretensions, I know well how defective my exposition must be. For it has no fore-

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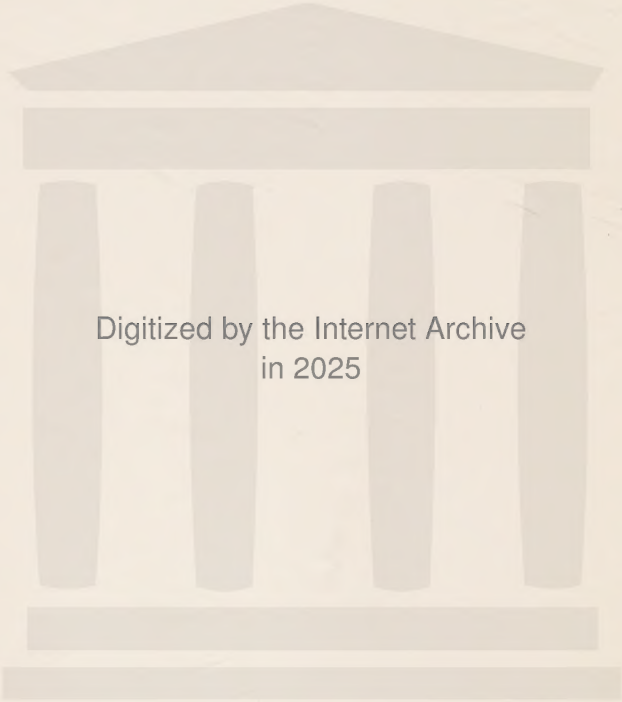
[1] *Philosophical Review*, XI., 151.

runners. Its many inductions, reaching over so vast and varied a field, have not been tested by the criticism of friend or foe. The work here begun is too great to be completed by any one man. I appeal, therefore, to the reader to aid me by pointing out errors of detail, and especially any seeming flaw in the main argument. Why despise a seeker after truth because he ventures upon a new and untried path? The old philosophy, with its vain subtleties, its paradoxes and equivocations, is virtually extinct. Why, then, should we confine ourselves to the weary task of embalming the remains of the dead?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THE NATURE OF THOUGHT

I. *Hume's Problem*

All thinking is a relating of cause and effect. For that proposition I hope to present many proofs. Against it I have been able in thirty years of search to find but one objection. That objection is that there are different kinds of causes so diverse that nothing can be predicated of them in common. For example Bradley in his *Logic* concedes that the proof of such a thesis would be "a very short cut to a far-lying goal." But he declares such proof to be impossible; and his reason is that the word "cause" has many meanings and that in trying to penetrate its ambiguities we are liable to be "lost in the mist of metaphysics."

Cause and Reason. Bradley confines himself to emphasizing the difference between cause and reason. To this he devotes an entire chapter; but the gist of his argument is given in a single one of three illustrations which he uses. "Two coins," he says, "are proved to have similar inscriptions because they each are like to a third; but the cause is not found in this interrelation. The cause is the origin from a common die." Could anything be sillier than that?

Here are two different effects; on the one hand, two similar inscriptions; on the other, our *knowledge* of their similarity. Certainly the two results are not produced by the same cause—to wit, the common die. But how does that prove any antithesis between a cause and a reason?

The other two illustrations are of the same kind, but even more fantastic. In fact the entire chapter is little more than a repetition of the argument just given.

Hume's Problem. Other writers, however, have raised other objections, as for instance the contrast between immanent and transeunt causes. But these matters will be considered in the course of our positive argument. Here it is needful only to face the supreme difficulty — Hume's celebrated problem which, according to Hoffding, "even Kant failed to solve and which indeed is insoluble." But that problem is instantly solved the moment that I prove that the idea of causality is logically involved in every process of thought, in every act of perceiving, conceiving, judgment or inference. Hume claimed that causation meant nothing but the uniform succession of phenomena in space and time. But I shall prove that each word in the substituted phrase—uniformity, succession, things or phenomena, time or space—has involved within it the idea of causality. The relations severally indicated by these words rest primarily upon causal relations; and when the latter are cancelled these words lose all their meaning. Each word in his substituted phrase

is made intelligible only by the idea of causality implicit within it. Thus in the very act of denying causation, Hume is really affirming it over and over again.

But from these preliminaries we pass on to our real task, the proof that all relations known to thought are at bottom causal relations.

II. *Mathematical Relations*

There is, however, a less absurd argument for distinguishing between cause and reason than the one already noticed in the first section. It is that cause refers only to changes or events, while ground or reason has a wider reference—for example, to mathematical truths which are not changes in time, but are immutable and eternal.

I answer that the results of all mathematical processes are mental; and that therefore they are the most evanescent and changeful of all results. All arithmetic, for instance, is so many abbreviated processes of counting, and counting is but the abstracting of a mental unit from each of several objects. But the mental unit exists only for the instant in which it is being abstracted. The next instant I may repeat the abstracting act, but then a new unit—a new mental result is produced. In fine, nothing is so unstable, so fugacious as thought.

But what then is immutable in arithmetic? I answer: the process of production—the method of counting or calculating. That never changes. And

therefore the mental results attained will always be similar.

It is the same in geometry. Space, as I hope soon to prove, is real. But the straight lines, curves, triangles, etc., which the imagination constructs in space are not real; they are as fleeting and volatile as all other mental results. It is only the cause, the process of production, the method of construction that never changes.

The trouble with our modern thinkers is that they are still enmeshed in the crudities of a pre-scientific philosophy. As is well known, the savage does not distinguish between true numbers and what are called material numbers—that is between the abstract unit and the object from which it has been abstracted. There are good reasons, too, as we shall show hereafter, for believing that the Greeks were not wholly exempt from this error. Rid yourself of this error, and you will instantly see that mathematical abstractions are purely mental results or events, and therefore are as properly ascribed to causes as motions are.

The argument then for any essential distinction between cause and ground is the mere survival of an archaic error.

III. *Relations of Resemblance*

Our mental life probably begins with the noting of resemblances. At least it is a process which the brutes can perform as well as man and often better.

Witness, for instance, a dog scenting the footprints of his prey.

But that this mere noting of resemblance is not real thinking is evident at a glance. For the moment we try to express it in clear, exact propositions or judgments, it shows itself as incurably vague, incoherent and even self-contradictory. For, we can affirm of anything that it is *like* anything else in the universe, and we can affirm with equal truth that it is *not like* that other thing.

How now can this vagueness and self-contradiction be transformed into real thinking? Simply by showing that upon which the relation of resemblance *depends*. Thus two yellow objects are made like by the process of light, by the action of the æther waves; at the same time they are made unlike by other causes. In fine, the moment we reach down to the causal relation underlying the likeness or difference, we begin to think.

All that seems plain and simple enough. And yet the neglect of it has brought chaos into modern speculation. For example, the writer already quoted has sent forth another famous volume, the keynote of which is as follows: "A relational way of thinking—any one that moves by the machinery of terms and relations, must give appearance and not truth." But scrutinize his argument for this amazing proposition and you discover that, like all Hegelizers, he is occupied solely with relations of likeness and difference. And confined within that sphere his paradox is but a truism. All relations of resemblance

are delusive and self-contradictory unless we point out that upon which the resemblance depends—in other words, unless they are transformed into causal relations.

But writers who are occupied solely with likeness, and difference and their "identity," fail to see that they are dealing only with inchoate relations which are vaguely felt rather than distinctly thought. So they announce to an astonished world that "relational modes of thought give appearance and not truth."

IV. *Substance and Attribute*

There is a look upon the very surface of things which bids us regard the relation of substance and attribute as a causal relation. Herbart has expressed it in his well-known formula: "Without causality no substantiality." Sigwart and many other logicians coincide.[1] Nevertheless this view must be carefully qualified, or else it will lead far away from the truth.

For the thing is not *the* cause, but only *a* cause of its attributes. Or abandoning old and misleading usages of speech, let us say that the thing is *a factor in each and all of the processes of causation through which its attributes are severally produced.* Modern science has shown that effects are not simple—as used to be imagined—but wonderfully complex. The color of a thing, for instance, is dependent not solely upon the thing, but is the resultant of an inconceivably complex process of causation wherein the thing is but a single factor.

This statement of the relation between the substance and its attributes is so simple as to seem trivial. But it throws a flood of light upon some of the chief obscurations in modern philosophy. One or two of these obscurations must be noted.

Inherence. Nothing has darkened philosophy quite so much as the very old but still surviving idea of attributes as inhering in or supported by the substance. The absurdity of this view is Berkeley's chief and most plausible argument for his system; and plainly it is absurd—this view of attributes inhering in the substance, sticking in it like pins in a pin-cushion. It is but a metaphor, and a very bad one.

Is it any wonder that this merely metaphorical relation explains nothing, breeds only confusion and darkness, and leads straight to Berkeley's illusionism? And the German philosophy, it seems to me, is little more than a revamping of Berkeley's with Berkeley's God eliminated.

But substitute for this idle metaphorical relation a true causal one between substance and attribute. Each attribute of the thing—a stone for example—is then seen to be an effect, a product of a special process of causation. Its color is the product of an optical process; its texture, of a crystallizing process; its shape and size, perhaps, of a glacial process; and so on through all its attributes. But the stone itself, the substance, is a factor in each and all of these varied processes. Thus all perplexities disappear. That one substance should have many attributes,

instead of being a contradiction, as Hegel and Herbart imagined, is an absolute necessity. For only through the presence of the thing as a persistent factor in different processes are we able to distinguish it from its attributes.

But we need not here pursue farther this line of thought—inviting as it is. For probably no one in these days will be rash enough to deny that the only true, completely intelligible relation between substance and attribute is a causal relation. And that is enough for our present purpose, which is to prove that all thinking is essentially a relating of cause and effect.

V. *Space*

I define space as an indispensable factor in all processes of physical causation. Does some one object that space does nothing, neither produces nor resists motion, and therefore cannot be causal? But Berkeley argued against the causality of things on precisely the same ground; things, he said, are inert and therefore cannot be causes. Nevertheless the world now accepts it as an established fact that the existence of the earth is an indispensable factor in the causal process by which the fall of a stone—for example—is made possible. And it is an equally indisputable fact that space is an indispensable factor in the processes by which not only all motions, but all things are made possible.

But how now do the friends of the pre-scientific philosophy, which still survives among us, manage

to annul these palpable facts? Simply by dissecting the causal process and then showing that each of the dead members thereof, by itself, can accomplish nothing. First, it is shown that space is inert, is not a thing and must therefore be nothing, or non-existent. Second, space being proved non-existent, it becomes a very easy task to show that things and motions are impossible. And so heaven and earth are made to vanish, as by the stroke of a conjurer's wand.[2]

But the days of this logical legerdemain will be over as soon as theorists begin to comprehend causation as modern science reveals it. Every effect, even the minutest, is the product of a very complex process with many factors of different kinds. No one of these—space, time, thing or motion—can by itself be a cause, for the simple reason that a cause requires them all.

Subjectivism. The so-called "idealism" is at present so evidently in a state of disintegration that to oppose it seems very much like an attack upon the dead or the dying. Still it is necessary to present here what appears to me conclusive proof that it is literally impossible to think of space as non-existent. That proof can be given in a few words, as follows:

We know our sensations, we discriminate one of them from another not through any attributes of their own, but only through attributes of spatial objects perceived.

The sensation produced by a round object is not itself spherical. The sensation of a mountain is no

taller than the sensation produced by an ant hill. The sensation of a red object is not itself painted red. In fine, perceptive states have no discernible attributes of their own; we discriminate between them only through the spatial attributes of the objects perceived. Therefore, when we cancel the spatial attributes of objects as unreal we annihilate every possible means of distinguishing one perceptive state from another; and since the other processes of thought—memory, imagination, conception—depend ultimately upon perceptions, we thus annihilate all thinking and all knowledge.[3] The whole fabric of thought instantly collapses.

Does some one insist that the spatial world is not really cancelled, but recognized as only existing phenomenally, as a universal dream, as ideas outwardly projected? I answer that your world as mental cannot possibly have spatial attributes, and that nothing can be known by ascribing to it attributes which it does not possess. And so idealism is not at all saved.

But while thus showing the idealistic theory to be impossible, let us do all honor to its high aim. That aim was to guarantee those primary convictions upon which the morality and religion of mankind repose. But such a guarantee cannot be gained in that way. That is abundantly proved by the history of the Maya doctrine in India and of Kantian illusionism in the nineteenth century. Indeed, morality and religion would perish utterly if mankind believed that they could be defended only by

accepting the paradoxes of idealism. But I hope to show in these pages that there is a better way.

In concluding it hardly needs to be added that what has here been proved concerning space, applies equally well to time. Both are indispensable factors in all processes of physical causation.

VI. *Concepts*

Almost every one now recognizes the futility of the old dispute between the Nominalist and the Conceptualist. Wasting no time upon dead issues, then, I seek to show that the primary and essential import of every concept is *to indicate a causal process.*

Note now that if all concepts can be proved to have this causal meaning, it would be enough by itself—even without reference to what has been said in previous pages—to thoroughly establish my thesis that all thinking is a relating of cause and effect; for no act of thinking is possible save through the medium of concepts. To find this required proof let us first consult the science of language.

The origin of concepts. It is now a well-established principle in linguistic science that the majority of verbal roots express acts, and mostly acts which men in a primitive state of society are called upon to perform—such as digging, plaiting, weaving, striking, throwing, binding, etc.[4] Furthermore, they are generally acts performed in common; for only thus could they become intelligible to the entire community, and only thus could the merely accidental

elements be eliminated. And most important of all, we are told that the mere consciousness of the acts of digging, binding, etc., is not enough; only when the processes are such that their *results* remain perceptible—for example, in the hole dug, in the tree struck down, in the reeds tied together as a mat—do men reach conceptual thought in language.[5]

Could there be any clearer proof than this that concepts spring from the recognition of processes of causation? Or, as Prof. Noire has expressed it: "The conception of *causality subsisting between things*. Verily! this constitutes such a simple, plain and at the same time obvious and convincing means of distinguishing the Logos, human reason from animal intelligence, that it seems inconceivable that this manifest and clear boundary line should not long ago have been noted and established as such." [6]

The classifying process. We turn now from this unimpeachable proof presented by the origins of language to evidence of another kind, later, but equally conclusive. It is the testimony offered by man's protracted effort to rightly classify natural things. But, first of all, we must get rid of the ancient superstition that true classifying consists merely in noting the similarities or resemblances of objects. Logicians and philosophers still cling to that idea with a sad tenacity; and yet a slight inspection of scientific methods ought to have taught them better. But we have proved, as the reader will remember, that a mere relation of resemblance, in and by itself, is

vague, misleading and even self-contradictory. This principle we wish now to apply to the history of the classifying process.

We find that at a quite early period men, even the half civilized and the savage, had succeeded fairly well in classifying living things so far as they were known, into their species or lowest kinds. The reason of their success is evident. They had constantly before their eyes the process of production upon which the resemblances depended, and hence it was not difficult to reduce the confused mass of specific and non-specific characteristics to an orderly arrangement.

But concerning inorganic things there was no such knowledge; their processes of production were hidden in a darkness which the most enlightened could not penetrate. Hence we find that every effort to classify these inorganic things ended in complete and even comical failure. So grand a genius as that of Aristotle could invent no better scheme for arranging inanimate things than under four such heads as "the hot and dry," "the hot and wet," "the cold and dry" and "the cold and wet."

Note furthermore that ancient classification even of living things was confined exclusively to species. For thousands of years learned men—Theophrastus, for instance, whom Aristotle selected to be his successor—had been studying botany; and yet until three centuries ago they had not advanced beyond the absurd division of the plant-world into "trees,

shrubs and herbs." But light dawned at last when Gessner discovered that true genera could be formed "by noting characteristics drawn from the *process of fructification.*" Since then naturalists, in their long search for a true or natural system of classification—as Darwin expressly affirms—"have always been unconsciously guided not by mere resemblance, but by the principle of inheritance." [7] And principle of inheritance is plainly but another phrase for process of production.

And under the guidance of this same principle Darwin himself was led to that sublime discovery which has revolutionized modern thought.

Why, then, should logic remain eternally myopic, seeing only the rough, blurred resemblances, blind to that upon which they depend? Hegel indeed had a certain glimpse of the truth; the concept holds in its very essence, as he said, the necessity of a development. But he could explain this fact only by the preposterous principle that contradictories were identical. Logic, however, does not need to commit suicide; it needs only to remember that a concept or kind must be understood as pointing not merely to a bunch of similarities but to the process of production upon which the similarities depend. Thus we surmount the seeming contradiction between the Darwinian view of the concept as in a continuous state of transition and the old Platonic view of the concept as abiding and changeless. The characteristics even in their variation are the necessary results

of a process of production that never changes. Just as the infinitely varying motion of a falling stone is the resultant of the invariable process of gravitation.

Abstraction. Another line of evidence is opened by considering that ignoble prejudice against "the abstract" which Hegel and his pupils have done so much to foster. The master indeed was an adept in ambiguities, but the pupils speak out boldly. Thus Bradley, for example, sends forth a book of five hundred pages crammed with destructive criticism hinging mainly upon the singular claim that to conceive is to "mutilate." We are there taught that "all analytic judgments are false." Why? Because in judging we must abstract, and in abstracting "we have separated, divided, abridged, dissected, we have mutilated the given."

But surely all that is mere foolishness. In abstracting, say the red color of an apple, you do not divide or dissect anything; you simply fix your attention, focalize your thought upon a particular aspect presented by the apple. You do not destroy, as Bradley asserts you do, "that vital interconnection of things which is their life." On the contrary, you enlarge and illumine that interconnection. You still consider—if you are sane—the color as inseparably connected with the apple, but also as connected with other factors in the vast process of causation that has produced the color—with the sun, the æther waves, the wondrous mechanism of nerve and brain. All these amplifying, illumining functions of the

abstracting act, functions opening up such endless vistas to man and lifting him into communion with the Infinite, all these Bradley overlooks in his unfounded fear that thought may be "mutilated." Does not such a criticism as his furnish another proof of my thesis? Does it not prove that when you fail to understand the concept as indicating causal process you make it very easy to maintain and very difficult to disprove that thought is anything more than error and vain deceit?

The Meaning of the Copula. And here we are introduced to still another theme that has long been enveloped in hopeless controversy and paradox by the failure of logicians to reach the deepest and only true meaning of the concept. Even the sober-minded Sigwart ends his rather prolix researches into the matter with the half-despairing question: "But how does it happen that the verb to be which is the expression of actual existence assumes a formal function in the copula whereby it loses its meaning—nay even seems to contradict it." [8]

My answer to that question is that in the copula to be neither loses nor contradicts, but rather reveals its true and deepest meaning. For all seem now to agree that being is known to us only as behavior,[9] what it does or suffers. In other words, to exist is to be in causal connection with other existents. And that is precisely its meaning in the copula; it asserts a causal connection between the subject and the predicate.

The copula as thus interpreted is wondrously adapted to express the peculiar relation between subject and predicate. For, as we have shown in the section treating of Substance and Attribute, the subject is not *the* cause of its predicate, but merely a factor in the causal process producing the predicate.

What adds to the cogency of this interpretation is that really there is no other. If you reject this you must either accept the Hegelian view that the subject is identical with the predicate, and that is absurd on its face. Or else you must accept the ordinary view which does not even pretend to explain the copula.

Thus we complete our summary of the proof—many different lines of evidence starting from many different sources and all converging upon the common conclusion—that a concept essentially means not a bundle of resemblances, but a process of causation.

VII. *The Infinite Cause*

The demonstration of our fundamental principle seems then to be complete. We have scrutinized every kind of relations known to human thought—those of mere resemblance, those of substance and quality, spatial and temporal relations, mathematical relations, classificatory ones, and finally all these aggregated together under the all-embracing term, concepts or universals—and underlying each of them

we have found a causal relation. We have proved also that when the latter is cancelled all these relations become meaningless and unintelligible. Therefore the denial of causality logically involves the complete collapse and extinction of all thinking. That is our solution of Hume's problem.

But there is a corollary to the above demonstration which must not be forgotten. The only true and complete cause as distinguished from results or effects must be an *Infinite Cause acting self-sacrificingly for the sake of others.*

For finite things, as we have seen, are effects; in common speech we call them causes, but really they are only factors in processes of causation. And, on the other hand, since the Infinite has need of nothing, His creative activity could only be for the sake of others.

Furthermore, under this view there is no contrariety between the relative independence of the created and the infinitude of the Creator. For voluntary self-limitation for the sake of others does not impair infinitude, but rather reveals it at the summit of its glory.

I claim no originality for this view of an infinite self-sacrificing Cause. On the contrary, this view has always been present more or less dimly in men's souls. All the sacrificial elements of religion are but distorted—often hideously caricatured expressions of this primary truth. Especially in studying the civilization of the Hindus we shall see how potent this view was among them, how their thinkers

debated it for centuries almost precisely on the lines indicated above, and how finally they went astray under the influence of their doctrine of Maya or illusionism.

All that I can claim is to have restored what has always lain dim and mutilated in human consciousness—to have exhibited it as an evident corollary from the demonstration of causality given in the preceding pages.

VIII. *Two Types of Civilisation*

All thinking then is a relating of cause and effect. From this insight we may derive a fundamental law of human development which is not a mere hypothesis or conjecture, but a plain deduction from the very nature of thought. For human life, being finite and imperfect, finds it very difficult to hold these two factors of thought in their proper equipoise. Hence two tendencies arise each of which develops one of the two factors at the expense of the other. The one tendency emphasizes causality or dependence, the other lays an equally one-sided emphasis upon effects, is engrossed with visible, practical results. Thus each tends to ignore what the other exaggerates. In each case, as we shall see, the dominant tendency will work itself out in all the varied spheres of life and thought—in religion, morality, science, art and the social organization. Thus two contrasted types of civilization divergent at almost every point will be created.

This principle of the two tendencies, I hope to show, is the key to the philosophy of history.

NOTES

[1] Sigwart, *Logic*, II. 91. "The concept of the thing when once it is removed from its popular vagueness cannot be completed without that of cause."

[2] Bowne, *Metaphysics*, 129 *seq.*, may be instanced as a notable example of this kind of argumentation.

[3] Adamson (*Development of Modern Philosophy*, I. p. 288) says: "The point of my argument that only through the character of that which is apprehended and referred to the trans-subjective, does the subjective, the inner life of the finite self receive definiteness of meaning." But the first publication of my view antedates his by many years.

[4] Muller, *Lectures on the Science of Thought*, 30.

[5] *Ibid.* 31.

[6] Noiré, *Origin of Language*, 47.

[7] Darwin, *Origin of Species*, Chap. XIV.

[8] Sigwart, *Logic*, Vol. I., p. 100.

[9] Baldwin, *Mental Development*, 271. "The thing is behavior." See also Schiller, *Humanism*, 209.

BOOK I

THE CIVILIZATION OF INDIA

CHAPTER I

The Religion of India

I. *Analysis of Tendencies*

In this and the succeeding book we seek to give a philosophic view of the contrasted civilizations of India and classical antiquity as unfolding from the two opposed tendencies outlined at the close of the preceding chapter. On the one side is Indian civilization genetically due to the unchecked development of the tendency to emphasize causality or dependence; on the other, classical civilization as an equally one-sided development of the tendency that is intent upon mere results.

But an objection may arise at the start. If all thinking is causal, must it not always emphasize causality? But it is now generally recognized that all thinking contains an element of willing, and *vice versa;* the old theory of separate faculties is abandoned. Under this view it is evident that thought may become preponderantly passive and contemplative, or else active, practical, intent upon results. It may be retrospective, reverent towards the past, submissive to authority; or else it may be

prospective, eager for novelty and progress. Above all, it may see in causes only means to its special ends, and so despising wide and vague generalizations seek for that *exactitude* so needful for successful adapting of means to an end. Or again the main trend of thought may be *explanatory;* or it may be *predictive.* So each of the two great tendencies branches into its special divisions, and each of these divisions has its various degrees of intensity. It is upon this multiplicity of tests that we rely to give our study a true inductive character.

From these preliminary views we turn now to our survey of Indian civilization, beginning with the characteristics of its religion.

II. *Sacrificialism*

The sacrificial idea, in some shape or other, pervades all religions, but in none of them is it developed with such fullness and startling mysticism as in early Hinduism. Sacrifice among the Greeks and Romans was merely a commercial transaction; you give food to the hungry gods and get something in return. But the Hindus rose above this sordid view to heights where the Western imagination has hardly been able to follow them. Sacrifice to them was not barter, but self-immolation. As such it was the first principle of morals; nay, more, it was the primary condition upon which the cosmic order depended. If there were no sacred offerings, the succession of days and nights, the course of the seasons,

the steadfastness of the firmament would cease. "Cast into the fire," say the Laws of Manu,[1] "the offering goes into the sun, from the sun rain is produced, from the rain nourishment, from the latter all creatures are produced."

Furthermore, these sacrifices on earth were but a mere copy of those offered in heaven. In the unseen world the gods performed the sacred rites which the Brâhmans, to the best of their ability, imitated in this world. "So," according to one famous Vedic hymn,[2] "the gods through sacrifice earned a right to sacrifice; these were the first ordinances."

But in this Vedic apotheosis of sacrifice, as it has been aptly called,[3] there was a still more fundamental thought. In the beginning of time, the Supreme Being created all things by the sacrifice of himself. Thus dimly the Vedas have preserved the view of creation as an act of self-sacrifice on the part of the Creator. That it is a survival of a more primitive tradition is shown by a host of facts. For instance, a similar account of creation as a Divine Sacrifice is given in the Scandinavian Edda.[4] And the Zendavesta speaks of Ahura-Mazda as offering sacrifices to the lower divinities whom he had created.

Some may dismiss all this intense sacrificialism of Vedic religion as "preposterous;"[5] or call it, with Oldenberg, "empty mummery, a disease of Vedic poetry."[6] But the business of the philosophy of history is neither to sneer nor to revile, but simply

to understand. And I do not see how any one can explain these utterances except as dim glimpses or forecasts of that one great truth upon which all religion rests. That truth, as was shown near the close of the preceding chapter, is simply this: infinite causation presupposes and cannot be made intelligible except as self-sacrifice or as effort *for the sake of others.*

But this conception of the Infinite as self-sacrificing was by no means an "intuition," an instinct of thought, obvious and irresistible. On the contrary, it was a difficult deduction made evident only by keen analysis and open to many objections. This accounts for its unfrequent appearance in Vedic poetry and its gradual obscuration behind the wild, grotesque fancies of Hindu mythology. What took its place we have next to describe.

III. *Pantheism*

The idea of the Infinite as self-sacrificing, we have seen, was not easy to grasp and difficult to hold. And its vanishing from Hindu thought was made inevitable by the steady advance of pessimism; little by little the faint, primitive faith in the Infinite as self-sacrificing Love evaporated before an ever-growing sense of the ills and misery of life. But this explanation only throws us back to another oft-asked question: Why did pessimism thus sweep like a flood over India? The answer returned by Oldenberg[7] and many others—that it was due to the

enervating influences of a tropical climate—does not seem to me altogether satisfactory. Climate may have been a contributory cause, but a deeper reason lay in the very nature of the Hindu emphasis upon causes and ignoring of results. For the best cure for pessimism is a life of action, a habit of looking eagerly forward towards results yet to be attained.[8] And all this was lacking in the Hindu sage, a hermit retrospective, perplexed, weighed down by a sense of dependence upon infinite mysteries.

But whatever may be the explanation, no one denies the fact that India, after the Vedic age, grew more and more saturated with pessimism. And so it happened that the skeptical Sankhya philosophy could sum up the argument denying all creation in three brief sentences, as follows: "To create a world like this would be unjust and cruel; Every intelligent being acts from self-interest or beneficence; A creator *who has all he can desire* has no interest in creating anything." [9]

And to that Sankara the most famous teacher of Vedanta orthodoxy can answer only that "the series of creations *has had no beginning*." In other words, both the skeptical and the orthodox schools cancel any real creation. They meet upon the common ground of Pantheism.

Illusionism. But in this acceptance of Pantheism, Hindu thought by no means surrenders that extreme emphasis upon causality which formed its very soul. It saved itself from this by inventing that extra-

ordinary doctrine of Maya, or illusion, which carried from India to Greece and thence handed down to modern times has exercised such an immense influence upon the human mind. By their pantheistic denial of any creation or beginning of things these Indian sages seemed to extirpate the very idea of causality, but suddenly they restore it in a new and wondrous form. There is no more a hint of "secondary" or intermediate causes or of things and persons. All was Maya. The Absolute One alone existed, and maintained that endless succession of curiously interwoven dreams that we call the universe.

The Maya doctrine was of comparatively late origin in Indian antiquity. At least Deussen's proofs of its existence in the Rig Veda do not seem to me convincing. But it was finally developed with a logical rigor that make our Occidental imitations look somewhat pale and thin. Indeed the average academic "idealist" of to-day is apt to be astonished when he finds that the idealistic arguments now most used were scornfully refuted and set aside as "absurd" more than a thousand years ago by Sankara, the great master of Hindu idealism.[10] But the explanation is easy. Hindu idealism was logical and uncompromising; for it the outer world was just as real as the minds that perceive them. As the Oriental sense of dependence had developed more and more, it had finally surrendered not only things, but personality, thought, will and feeling as nothing but a dream.[11] Compared with

the incisive vigor and thoroughness of this old Hindu logic our modern idealism is a decided degeneration.

IV. *Metempsychosis*

But the most peculiar and the most potent factor in Indian religion is its doctrine of re-incarnation. It is absolutely unique, known in no other land save as an echo from Indian shores. But in Hindu thought after a certain date it was an axiom. Not even skepticism, so long as it pretended to be intelligent, could discard it. The atheistic Sankhya philosophy does not dream of doubting re-incarnation; on the contrary it claims as the special merit of its doctrine that it "delivers the soul from the misery of the endless flow of existence and abolishes the necessity of being born again." [12] All the rival schools make the same boast, each for itself. And even Buddha, who doubted everything else, made this doctrine the very pivot of his system, although upon its very face it is absolutely irreconcilable with his other convictions.[13]

The universal acceptance of this doctrine by the Hindus and the overwhelming importance it assumed have never been explained. But it can now readily be explained as an inevitable outcome of that excessive, one-sided emphasis upon causality which forms the essence of Indian civilisation. To make that more evident, let us look analytically at some of the main features of the doctrine.

Note first its ethical import; its intense insistence

upon the moral order of the world. As has been well said, " its attractiveness for the Asiatic consists in the fact that it solves that endless puzzle which European thought has given up in despair, viz., the apparently unjust government of the world by a just God."[14] All pains, deformities and troubles are conceived as causally connected with sins committed in a pre-existent state.

A second notable feature of the doctrine is its insistence upon the close causal connection or interdependence subsisting between all forms of being. "To draw any line of distinction between stocks, stones, plants, animals, man or the gods," says Sir Monier Williams,[15] "is according to the theory of Brahminism impossible." And in that we have a vivid picture of what Oldenberg rightly calls the utter "resultlessness" of the Hindu conception of life.[16] The individual passes on through an endless series of mutations—from an insect to a god, and then back again, perhaps—nowhere is there finality, any definite result or purpose to be attained. Can anyone conceive of a more perfect portrayal of what I have described as the essence of the Hindu spirit—exaggerated emphasis upon causality and a corresponding neglect of *results?*

Again the cosmological significance of the doctrine is great. Brahma, the Absolute One, is the cause of the unity, the order, vastness and beauty of the universe, but all its disorder, evanescence and evil originate in the enchainment of Karma. Or, as Sankara puts it: "The world is a world of inequali-

ties because of the various works that *have* to be recompensed to the migrating souls.[17]

Finally the doctrine, like that of Maya, was of slow growth. Its incipient stages can be discerned in the Brahmana.[18] And note, furthermore, that when this conception of Karma first appears it does not come clothed in the gloom and despair it afterwards assumed; what later on was abhorred and dreaded was in the Brahmanas welcomed *as a blessing!*[19] But gradually the sky darkened. The Hindu mind retrospective, contemplative, seeking eagerly for causes, sought to explain the facts of life. But with every attempt at explanation the mysteries and contradictions seemed to multiply, the problem of evil grew more hopeless, and so finally—about the time of Buddha probably—the dogma of re-birth put on the hideous form it ever since has worn—a doom of despair, a curse pronounced upon the human race. And thus for the Hindu, salvation came to mean to be rescued from existence.

V. *Faith*

A boundless faith is another marked characteristic of religion among the Hindus. Blindly, eagerly, they bowed before the authority of their ancient writers; each line in the holy Vedas was infallible, each word and letter invested with a peculiar sanctity. There was no legend too childish, no magic too absurd or base not to be accepted. All these matters are well-known; and equally evident is their origin

in a spirit retrospective, engrossed with the conviction of dependence.

Skepticism. But the question of faith is beset with many difficulties which have never yet been removed. Much light it is hoped will be thrown upon them in the progress of this survey of civilisation; but for the present it is enough to point two special features of Hindu faith, and first its inexactitude. At the outset of this chapter we described exactitude as springing out of the counter-impulse to that of India, out of intense effort to adapt means to definite ends or results. Therefore Hindu thought, engrossed with causes, little intent upon results has always lacked exactness. Especially, its boundless faith has been something like a great river without banks, so broad and diffusive that it loses itself in the sands. This accounts for that anomaly which every one notes in Buddhism, its strange blending of blind faith with the most sweeping skepticism. The same anomaly is equally prominent in the orthodox Upanishads and in all the rival systems of India's philosophy. And we shall also find this insight illumining much in the development of its art, science and morality.

Hopelessness. When the Greeks first became acquainted with the Hindus, nothing amazed them more than the fixed, full assurance of India's faith in immortality.[20] It was in complete contrast with their own attitude of doubt and wavering concerning the hereafter.

Nevertheless the Hindu belief in its final develop-

ment was devoid of one element essential to all genuine faith. It gave no gladness and kindled no enthusiasm; rather, it filled the soul with gloom. It was not so in the earliest Vedic age. Then faith was still simple and primitive. Death is pictured as a passing "across the great mountains to a home which cannot be taken from us—where every wish is granted in the highest heaven." [21] The prayer of men was: "Where there is eternal light—where life is free there make me immortal." [22]

But as the centuries rolled by and India became more and more engrossed with the thought of dependence and fatalistic speculations, this primitive hopefulness slowly vanished; and, just as I have explained in the preceding section, the gloomy, despairing doctrine of re-incarnation took its place. So it happened that the very essence of Hindu religion came to be faith without hope.

NOTES

[1] Manu, *Institutes,* III. 76.
[2] *Rig-Veda,* X. 90. 16.
[3] *Brhaddevata,* Vol. II., § 69. *Harvard Oriental Series.* "He (Prajapati) having divided himself into three parts, etc." See also the Purushta Hymn in Rig Veda, X. 90.
[4] Ragozin, *Vedic India,* 382; Menzies, *Hist. of Religions,* 68.
[5] Williams, *Brahmanism and Hinduism,* 44. "The most preposterous of all the ideas connected with the sacrificial act was that of making it the instrument of creation."
[6] Oldenberg, *Ancient India,* 20.
[7] Oldenberg, *Buddha,* p. 11. Hopkins, *Religions of India,* 313, disagrees with this. In another place he says that "politics and society had more to do with altering opinion than had temperature and miasma." There is truth in that, too.
[8] Gough, *Philosophy of the Upanishads,* 206-8.
[9] *Ibid.* Also *Vedanta Sara* XXVIII, where Ramanuja says that matter

and souls—"the body of the Lord are to be looked upon as his *effects;* but they have had their individual existence from all eternity."

[10] Gough, *Philosophy of the Upanishads,* 192 *seq.* Note especially Sankara's argument about "the irradiation of the perception by itself."

[11] *Vedanta Sara,* V. 16. The individual is but "a projection of the Infinite Spirit as the image of a face is projected in a mirror."

[12] Garbe, *Ancient India,* 10-11. Also Deussen, Philosophy of the Upanishads, 354-5.

[13] Rhys Davids (*Buddhism,* 165) wonders why Buddha retained this dogma, and *hopes* for a future answer. My answer is that Buddha was a Hindu.

[14] Townsend, *Asia and Europe,* 14.

[15] *Brahmanism and Hinduism,* 44.

[16] Buddha, 45.

[17] Gough, *Philosophy of the Upanishads,* 207.

[18] Muir, *Ancient Sanskrit Texts,* Vol. V., p. 314, *seq.*

[19] *Cat. Br.,* I., 5, 3, 14, *cf.* Hopkins, *Religions of India,* 204.

[20] Megasthenes, *Indica, ed. Schwanbeck,* 137.

[21] Rig-Veda, X. 14.

[22] *Ibid,* IX. 113.

CHAPTER II

HINDU MORALITY

I. *The Basis of Ethics*

Our thesis is as clearly and fully verified in the ethics as in the religion of India. For the supreme problem of ethics is to show the cause or ground of moral obligation. Why ought we, without reference to our personal likes or dislikes, to do certain acts and to leave certain others undone? Over that question our own moralists are still in a quandary; their answers are conflicting, vague and unconvincing. But to it India early gave the answer that there was a Moral Order which ruled the universe, establishing moral laws and enforcing them with all the power of infinitude. To that answer she has adhered with a wonderful tenacity for thousands of years. More and more her emphasis upon causality has focalized in this assurance of moral causation.

Of course this faith in the Moral Order implies that virtue leads to desirable results; a cause without any effects would be absurd. But note that the results are always conceived as secondary and

derivative. India did not try to deduce the moral order from any analysis of the good and evil fortunes of men: if she had she would have landed in the same abyss of ethical bewilderment and skepticism that Greece did. On the contrary, India took directly the opposite course. She postulated the moral order and then invented the unique scheme of metempsychosis to justify her faith.

Not even her pessimism disturbed this fundamental assurance of Karma, the iron chain of moral causation. In that curiously subtile fashion which reached its climax in Buddha's system, Hindu thinkers managed to retain their faith in moral causation even while abhorring all its results.

Finally, this belief in Karma was not merely primary but all-embracing, the pivot upon which all other thought turned. Hindu cosmology, for example, was based upon it. The world and all that lived therein were created in order that sins might be expiated and the moral order maintained. Souls, the Vedanta says, "demand for their atonement the repeated creation of the universe." [1]

Self-Sacrifice. But our verification goes still farther. It shows that India conceived results not merely as secondary and of minor importance, but that she was wholly blind to those results that were most significant and essential to morality. And thus we come to a very simple and sure explanation of what seems most inexplicable and monstrous in her life—her asceticism.

For the gist of the moral order ordained by the

Infinite is that man should be as much as possible like his Maker. He should strive to be self-sacrificing—subordinating his own private interests to the common interests of all. But India, through her indifference to results, had lost the true meaning of self-sacrifice as effort for the sake of others—for the promotion of their interests and happiness. For this true self-sacrifice she had substituted the idea of self-torture. To refuse all the joys of existence, to live in anguish, to starve, maim and rack the body with every possible pain—this India deemed to be the ideal of existence ordained by the moral order of the world. That, beyond a doubt, was the deadliest of all the errors into which India fell. It was the fatal curse that wrecked her civilisation.

Who will gainsay, I fearlessly ask, this explanation of Hindu morality? Who can reconcile in a clearer, simpler way features so antagonistic as the two here described? On the one side we have the emphasis upon causality creating the firmest faith in the moral order of the world—a faith which our modern life with all its culture and Christianity has not been able to retain. On the other side we have a corresponding indifference to results which has perverted and degraded this splendid faith into an insane demand for cruel, useless, life-long torture.

Self-sacrifice thus degraded to self-torture evidently does not promote any real humanitarian impulse. Many recent writers have noted this lack of sympathy in Hindu life. Oldenberg, for example, speaks of "the cool air in which all Buddhistic moral-

ity floats." [2] "Its motive power is not the groundless enigmatic, self-surrender of love, but rather intelligent reflection upon what is politic or profitable." [3] And Indian philosophy throughout is content with a recommendation not to active effort for the alleviation of human misery, but to remember that the pains and sorrows of life are nothing but dreams. A rapt admirer of that philosophy ecstatically exclaims: [4] "The Bible says, 'Love thy neighbor as thyself,' but Veda says, 'Thy neighbor *is* thyself and what separates you from him is mere illusion.'" Imagine all the philanthropies of Christendom reduced to an endeavor to persuade the unhappy that neither they nor their troubles had any real existence!

Still we cannot say, with another recent writer,[5] "that Brahmanism contains no message of comfort for the sufferer, of love, forgiveness or humility." The Mahabharata commands us "to overcome the evil man with goodness"; [6] and in another place sets forth as an example, "the tree that screens with its leaves the man who fells it." [7] And we know that at least in one Buddhistic kingdom, four hundred years before Christ, charitable institutions were numerous; rest houses for travellers were provided on the highways, and the capital possessed an excellent free hospital endowed by benevolent citizens. And yet the impartial critic, while doing all honor to what is really good and noble in the Indian doctrine of charity, must also recognize in it a grave, incurable defect. There is a taint of morbidness and of insincerity in an ethics which induced Buddha,

so we are told, to give his body to feed a hungry tiger. It is a hideous perversion of morality which makes the Jains so anxious lest they destroy or even disturb the vermin upon their bodies, which causes hosts of monkeys to be fed at the public expense while the men and children are left to starve, that counts it a deadly sin to step upon an insect and yet holds human life cheaper than dirt. Somehow the Hindu's ideal of self-sacrifice has served only to heighten his inhumanity. The want of the power of sympathy is the root of all evil in him.[8]

But this seeming anomaly vanishes when we remember that the fundamental law of Indian civilization is an ever growing exaggeration of causality. The Hindu weighed down by his fatalistic emphasis upon Karma, or the iron chain of causes, looks with despair upon every effort to mitigate the misery of mankind. And so it happens that his ideal of self-sacrifice is so apt to vaporize into an ascetic discipline and the veneration of vermin.

II. *The Practical Virtues*

There seems now to be almost complete agreement among moralists of every school that ethical laws like physical ones are made known only through observation of results. The older view that each moral precept has been directly revealed by some "innate idea" or "intuition" implanted in the human breast has broken down before the unanswerable question: How then shall we account for that

marked diversity of ethical judgments exhibited in different ages and among different peoples?

Furthermore, even if we suppose a moral code intuitionally revealed, some means of interpreting it are still requisite. The Middle Ages and modern times, for example, although bowing before the same ethical code, differ much in moral sentiment, because each of the two periods has given a special prominence to a particular part of the code. And universally the worst iniquities of mankind have come not from the willful transgression of some moral precept but from the unconscious obscuration of that precept through the over-shadowing importance attached to some other part of the ethical system. The only safeguard against such obliquities and distortions is through the appeal to experience, the constant testing of human conduct by its bearing upon human welfare. In fine, right action is known definitely and thoroughly only through its social results.

And here we have another signal proof of our law of Indian civilization—engrossment with causes and corresponding neglect of results. For, plainly, Hindu ethics was developed with very slight references to the practical consequences of conduct. There was a strange lack of ethical perspective. Trivial precepts assumed supreme importance; the most momentous ones from a practical point of view became secondary. The weightiest motives of the law seemed of less moment than the pettiest scruples of superstition. "The slaughter of a cow excites

more horror among many of the Hindus than the slaying of a man."

Veracity. It is through this ascetic disdain for the practically useful that truthfulness has become an almost submerged virtue in India. Max Muller, indeed, with a pardonable enthusiasm for the Orient, denies this charge of unveracity, but a few extracts from a vast and complex literature can have but little weight against the almost unanimous testimony of those who have had long and close acquaintance with the daily life of the Hindu people. To this day, says Lord Elphinstone, "unveracity remains the universal and incurable plague-spot in the moral life of India." [9] In Hindu households veracity is said to be scarcely recognized as a virtue and in the Anglo-Indian courts of justice native testimony is generally regarded as almost worthless.[10] And so everywhere throughout the East, "the dominant note of Asian individuality is in character a general indifference to truth and respect for successful wile."[11]

In fine, truthfulness is of course honored in Hindu ethics, but still its sanctity is over-shadowed, it loses something of its majesty and power because minor precepts and even mere superstitions are lifted above it.

Justice. The Hindus, for the same reason, have given but a low place to justice, which, judged by the standard of utility, should stand at the very summit of the virtues. Theirs is the morality of dependence, resignation and submissiveness; men must bow to the authority of the past, however

iniquitous; innovation is impiety. Even in the Vedic hymns Varuna, the god of justice, the protector of rights, the avenger of wrongs, is represented as a waning divinity; his power is slowly yielding to that of Indra, the god of the stormy sky, of might and battle.[12] It was a wonderful prophecy of the whole future of India wherein right was ever to yield to might, and justice vanish before tyranny and submissiveness.

Ethical Decadence. Thus Hindu morality was under the doom of a continuous declension. The early Vedic hymns are nobly ethical; they adjure man to be "without reproach before the Infinite"; they recognize no wicked divinities, and no other mythology offends so little against moral delicacy. But India, with all her enthusiasm for causes, did not comprehend that they cannot be really known save through their effects. Above all, she disdained to test her moral convictions by their social consequences. And so the distinctions between right and wrong constantly grew more confused and misty, until they finally vanished in the chill fog of such merely negative conceptions as "the Atman," "dreamless sleep," and unsocial asceticism. Then virtue came to be nothing more than "an ornament"; it might be useful at the start, said Sankara, but it was no longer needed when "knowledge had once arisen." "He who knows the secondless reality may act as he likes; moral distinctions no more concern him than they do a dog."[13] Or, as one of the Upanishads expresses it: The thought affects not him what have I left undone, what evil done.[14]

And according to the Yoga philosophy virtue and vice are mere "inflictions"; to him who can "discriminate" both are equally painful.

But let us do no injustice to Indian morality. The Hindu has done what modern thought has not done; he has maintained his faith in the moral order; his ethic has foundations, and nearly one-half of the human race are indebted to him for all they know of a charity and self-sacrifice reaching beyond the narrow bounds of family or tribe.

Nevertheless, India's whole career vindicates our philosophy of history. The nature of thought is such that human progress can be maintained only through a certain equilibrium between two complementary tendencies. The decadence of India is due to an ever increasing emphasis upon one of these tendencies and a corresponding neglect of the other.

NOTES

[1] Deussen, *Outlines of the Vedanta*, 20.
[2] *Buddha*, 298.
[3] *Ibid*, 292.
[4] Deussen, *Philosophy of the Upanishads*, 48. D. asserts that the acceptance of this philosophy would "give the finishing touch to the Christian consciousness. It would, undoubtedly.
[5] Hobhouse, *Morals in Evolution*, II. 105.
[6] Maha-bharata, III. 13253.
[7] *Ibid*, XII. 5528.
[8] Townsend, *Asia and Europe*, 14. "We have no pity,' said a Pandit to Townsend (p. 96). See also a chapter on "The Cruelty of Europe and Asia" (p. 260-7).
[9] Elphinstone, *History, India*, I. 378. Macleod, *On India* and almost every Indian authority.
[10] Maine, *Village Communities*, 225.
[11] Curzon, *The Far East*, 4.
[12] Muir, *Sanskrit Texts*, V. 116. Barth, *Religions of India*, 19, doubts this decadence, but it seems to me on vague grounds. Bergaigne, *La Religion Vedique*, III. 142.
[13] Jacob, *Hindu Pantheism*, 119.
[14] *Taithiriya Upanishad* II. 9.

CHAPTER III

THE SCIENCE OF INDIA

To India belongs the glory of having laid the foundations of science. A few years ago that assertion would have been eagerly disputed, in favor of the rival claims of Egypt, Chaldea and, above all, Greece. But recent investigations seem to have conclusively shown that the famous Pythagorean Theorem—the real starting point of geometry—together with most of the other doctrines taught by Pythagoras came through Babylon from beyond the Indus.[1] And, as we shall see in the next Book, the later scientific movement centring at Alexandria is directly traceable to influences from the same source. Algebra, also, we know to have been an Indian discovery introduced into the West by the Arabs at a still later period. Undeniably then India was the creator of mathematics and, that conceded, no one will dispute the assertion that she laid the foundations of all science.

What now was the reason for this pre-eminence of India in mathematics? I hardly think that that question has ever before been asked; certainly it has never been answered. My own answer has two parts.

First, Hindu inquiry sought for processes of causation [2] rather than for mere likenesses and differences. It kept strict guard against that fallacy of resemblance by which even modern logic has been ensnared. From the relation of cause and effect, the Buddhist logicians insisted, invariable connection is made known, "not through the mere observation of the desired result in similar cases nor through the non-observation of it in dissimilar cases." [3]

From this stress on causality there came a deeper insight into the nature of number. Others before me have noted that primitive man generally conceives only of what have been called material numbers—that is numbers undistinguished from things numbered.[4] Something of this confusion seems to have lingered in Greek thought, if we may judge from its misty speculations concerning the Pythagorean "numbers" and from the extreme clumsiness of its arithmetical notation. But the Indian mind had clear insight into the real nature of numbers as purely abstract, as the mental product of a mental process of causation.

Secondly, this engrossment with causes entailed neglect of results. But note now that *mathematical processes, unlike physical ones, do not need to be verified by comparison with observed results.* That is the transparent reason why India's scientific preeminence was confined to the mathematical sciences.

Philological Science. An exception to the last remark, however, must be made in favor of the wonderful work done by Panini and others in

tracing the development of words to their original roots. No thinker of ancient Greece or Rome or even of modern times until the last century had dreamed of such an undertaking. Is not this another revelation of the peculiar bent of Hindu genius, always seeking for processes of causation, ever aspiring to know the origin of things?

Physical Science. Already we have explained why Ancient India achieved so much in mathematical, and so little in physical science. The abstract products of mathematical processes are absolutely uniform; the ratio of the diameter to the circumference, for example, remains precisely the same in all possible circles that imagination can conceive. But each product of any physical process is modified in a thousand ways by other processes and things in its environment; hence, no exact knowledge of Nature can be attained save through minute, cautious experiment and observation. But all such work the Indian scorned. The Bhagavat Purana utters but a commonplace of the national thought when it declares: "Nature is most beautiful, but none the less she is Maya, the false and cruel seducer of men." And in another passage we are told that "the senses are five brigands that bind and rob man as he wanders through the forests of existence."

Physical research, thus handicapped, evidently could not advance very far. In a word, the great Indian thinkers had the scientific aim but they lacked the scientific method. They yearned to know

the secret processes of Nature, to unveil the unity and interdependence of all things, but their only method was that of poetic dreams and wild conjecture. What hope, for instance, was there for a system of mineralogy that began with the dogma that "gold was solidified light"?

Medicine. Note also that Indian science seems to have been under that same doom of declension which we have already discovered in its religion and its morality. A marked instance thereof is afforded by the history of medicine. The ancient Brahmans began with a high enthusiasm for medical science, which they called a new Veda or revelation from heaven; they studied anatomy with a zeal that did not shrink even from dissecting dead bodies, and their students were ingeniously trained to a high degree of skill in medical operations. They learned nothing from the Greeks but taught them much; Arab medicine was founded on translations from Sanskrit works, and European down to the seventeenth century was largely based upon the Arabic.

But while Indian medicine was thus being carried to all parts of the civilized world, it had been for a thousand years before the date just named steadily declining at home. Gradually the learned Brahmans abandoned their medical practice, yielding it to a lower caste. Eventually even the latter grew tired of their profession and it fell into the hands of a still lower order—charlatans, who gathered a few herbs and practiced magical incantations very much in the style of the savage "medicine-man." [6]

There is a very common because very easy way of explaining such decadence as due to what is called "race exhaustion." But that is a mere metaphor which explains nothing and only misleads. India's intellectual and moral energies had not been exhausted or even weakened. Her real trouble was not exhausation, but exaggeration, unchecked development of a one-sided impulse.

History. India's lack of the scientific method is forcibly evinced in her indifference to history. Her institutions, thought and life are all instinct with an immense reverence for the past, but this reverence loses itself in its very immensity; it passes disdainfully over the immediate past and wanders off into the infinite and eternal. Exact observation of facts, interest in human affairs, criticism, free inquiry, all the elements of the historic method were wanting. And so if it were not for a few coins and inscriptions, together with some slight accounts given by travellers from Greece, China and elsewhere the history of India would be virtually a blank.[7]

In this survey we have not followed the usual fashion of theorists and selected special instances that happened to fit our theory. But we have taken the whole round of Indian development in the several sciences and found it governed at every point by one fundamental law—eager search for causal processes or principles, but with scant observation of results. In the mathematical sciences, this second factor, observation is not required; and of them India indisputably was the creator. In the

physical sciences, where everything depends upon observation of results, she achieved but little. And the exceptions serve only to give more proof of the rule. Etymology, for instance, is pre-eminently a search for origins. And in medical inquiry concern about results is made compulsory by the very nature and purpose of the science.

Engrossment with causes, neglect of results. Who now will venture to come forward and show that this does not form a philosophic explanation of India's scientific development? As for any other theory there is none. And, so far as I know, there has not even been a serious attempt to form one.

NOTES

[1] Garbe, *Philosophy of Ancient India,* 43. Even Pythagoras' prohibition of beans was of Hindu origin. Hopkins, *Religions of India,* 559, fully endorses Garbe's conclusions.

[2] Oldenberg (*Buddha,* 242) notes that Sankahara means in Buddhism both process and product. The emphasis upon processes of causation is thus so strong that the product is merged in it. "The world is only the world's process" (p. 240). "The made has existence only in the process of being made."

[3] Madhava Acharya, *Sarva Darsana,* 12.

[4] Wallace, *Hegel's Logic, Introduction.*

[6] Hunter, *Hist. India,* 64-5.

[7] "Bei dem Hindu hat die Religion alle Geschichte Zerstört." Klaproth, *Wurdigung d. a. Gesch.* quoted in Lassen's *Indische Alterthumskünde,* II. 3. Lassen also notes other causes all derivative from the generic one noted above. Concerning the low estimate of history in modern India, consult Malcolm, *Memoirs of India,* II. 195 and I. 59.

CHAPTER IV

THE ART OF INDIA

I. *Theory of Art*

So many different æsthetic theories have been invented and have given rise to so much fruitless controversy, that modern opinion has come to doubt whether any really systematic conception of the beautiful was possible. Nevertheless, from our present point of view, still another theory is irresistibly suggested. It is as follows:

Beauty is the *dim* manifestation of *causal* unity amidst variety.

Leaving out the italicized words, we have simply Aristotle's theory that beauty is the manifestation of unity in variety. That doubtless was the universally accepted doctrine long before his day. But we make it immensely more definite and truthful by adding the emphasized words.

First, the added word "causal" is very important as distinguishing between the lax, superficial unity of mere resemblance and the true unity of dependence upon a common cause.

Second. Of still greater importance is the emphasis upon dimness of manifestation. That ex-

plains the difference between Art and Science. Art dimly suggests to feeling what science has not yet disclosed in exact and formulated terms to thought. Secondly, it explains why we recognize the beautiful through the emotions: for the very essence of the emotions lies in this dimness of suggestion; they stir us so profoundly because they partly unveil what lies beyond the range of exact thought; the intellect instead of mastering them is mastered by them. Furthermore, the imagination is stimulated by the almost illimitable expansiveness of this dim suggestion: it is like the obscurity of night unveiling a universe that is hidden by the open light of day.

I have now to show that this theory explains those empirical rules which are universally accepted as principles of beauty.

Beauty of Form. The curve has always been recognized as the line of beauty. This rule is regarded as an æsthetic axiom, something "ultimate and inexplicable," which everybody admits without knowing the reason why. But from our present point of view its explanation is evident. In a curve changing its direction at every point is infinite variety; but this incessant variation is everywhere dependent upon and governed by a principle of unity obscurely manifested to æsthetic feeling long before its mathematical formula was exactly determined and known.

But our explanation goes even deeper than that. It goes on to explain the different æsthetic values

attached to different kinds of curves. Thus, according to Hogarth, the serpentine line is pre-eminently beautiful; on the other hand, straight lines are "too lean and poor," while circles or nearly circular lines are too "gross." These rules, laid down by the unerring instinct of a great master, are evidently correct, but Hogarth's explanation of them is a mere metaphor naturally suggested to a painter of portraits. A circle is the least beautiful of all curves, not because it is too gross or fat, but because its unity is too openly, instead of dimly, manifested. The regularity, the dependence upon some one fixed law is so obvious and obtrusive as to almost hide the other element—infinite, incessant variation. Hence the superior beauty of the ellipse, the serpentine line, etc., where the regularity or dependence is less obvious, hides, as it were, behind open and conspicuous variation.

That, then, is the law of beauty in form; the variety is sensuous and evident, but that upon which the variety depends is obscurely felt. Even in our brief survey many dark passages in art, especially in architecture, will be made luminous by this law.

Beauty of Color. The charm of color, likewise, has long been accounted something inexplicably "organic," or primitive. But from our present point of view this charm, it seems to me, no longer remains a mystery. On the one hand colors are the very symbols of variation and contrast; on the other, they are marked by a *subtile gradation* whereby one hue glides imperceptibly into another with

infinite grace and delicacy. And therein lies the secret of their beauty. This gradation dimly reveals their interdependence, their community of origin and nature.

Hence savages and children delight most in gaudy, glaring colors. They are impressed only by contrasts and changes; their eyes have not been opened to the delicate transitions, the graded tints, the dim intimations of dependence.

Beauty of Sound. In music there is the same dim disclosure of causal unity, of some subtile bond of dependence between a multitude of varying, contrasted sounds. Take away this secret interdependence, and there would be left only *noise*, a jagged series of sensations, irregular, harsh and irritating. Take away the dimness of disclosure, substitute for it some obvious regularity of similar sounds and the result would soon be an insufferable monotony.

It is well known that savage or primitive music is exceedingly monotonous. The reason is that the primitive mind has not learned to appreciate any deeper unity than that of mere regularity, a uniform succession of similarities; it does not attend to those dim intimations presented everywhere in Nature, of a unity of dependence between things most diverse and widely contrasted. Even the Greeks and Romans knew nothing higher in music than melody; we shall see hereafter that harmony, the hidden, mathematical interdependence of contrasted strains was the invention of a later civilization than theirs.

Theory of Art. Beauty then in all its three grand divisions of form, color and sound is the dim manifestation of causal unity or interdependence amidst variety, and art is the appreciation by feeling of these two factors in the beautiful. Hence the distinction between art and science is the distinction between feeling and thought; art is the emotional appreciation of the two factors; science is a recognition so definite as to be expressible in exact formulas. It is this theory of art which we hope to verify through our study of æsthetic development in the different forms of civilization.

II. *The Indian Love of Nature*

The modern world has been deluged with talk about the poetic love of Nature. Nevertheless, there has been a curious silence concerning what ought to be, apparently, the first question suggested by such a theme: What is the origin of this, the noblest impulse in the realm of art? Why was this poetic passion for Nature so strangely lacking among the Greeks, the most artistic of all races? What gave it such vigor in Indian art, which, in many other respects, was so defective? What has been its fate in the Middle Ages and in modern times? If my philosophy can satisfactorily answer these questions it will deserve some remembrance, for it will have filled up a serious gap in the history of human thought.

Vedic Sentiment. The genesis of India's love of

Nature has already been indicated in our account of her science. Her belief in the unity and interdependence of all things was deep and strong, but it lacked clearness and scientific exactitude. But the very essence of art is this dimness of intimation — the dark enigmatic disclosure to feeling of what cannot be distinctly formulated in thought. And so it happens that the poetic love of Nature, this tumult of feeling which cannot rise to the serenity of exact knowledge, forms the vital breath of all Indian poetry and art.[1] It pervades the earliest Vedas; nor must it there be confounded with mere nature-worship, which often arises more from fear than love.[2]

Epic Poetry. In the epic period, the love of Nature has gained a still richer development. It is no longer confined mainly to celestial phenomena but reaches down to what seems least and most trivial—the world of plants, the insects, the rocks and barren places of the earth. "All the writers of great epics show themselves overpowered, as it were, by emotions connected with their interpretation of natural scenery."[3] In the Ramayana even the huts of the hermits are set in such charming landscapes—strewed with wild flowers, engirt with great forest trees, bearing pure and delicious fruits, enlivened with deer, singing-birds and nymphs—that they "resembled the habitation of Brahma."[4]

The Hindu Drama. Here also the chief inspiration and charm come from the sentiment for Nature. The forest and ocean scenes of Kalidasa,

especially, are among the finest poetic creations of any land or age. Even the individuality of his characters seem to depend in some strangely subtile way upon the environment of flowers, gardens and forests amid which they move. It was this which so captivated Goethe that he ranked Kalidasa's best known work as the masterpiece of the world's art. Scholars have disputed much over an alleged indebtedness of the Indian dramatists to Greek influences; but the controversy seems rather childish when we remember that the one feature which forms the unique, supreme glory of the Hindu drama is, as I shall show, utterly lacking in the Greek.[3a]

Even in a later period of comparative decline the enthusiasm for Nature did not abate; the Gita Govinda is radiant with it. In the lyrical poetry of India, also, "the plant and animal world play a most important part and is treated with great charm." [4a] In fine, the Brahma Purana portrays the very soul of all Indian poetry in its allusion to "a sense of mysterious harmony which pervades the world and echoes in the human heart."

Asceticism. One chief source of modern error concerning the love of Nature lies in the failure to distinguish it from a merely sensuous enjoyment of external things. Some critics have been so blind to this obvious distinction that they have attempted to prove that the Greeks had the poetic love of Nature by collecting passages which show only appreciation for what is pleasant and profitable in the outer world—the cool shade of the forest, the breeze

from the ocean, the promise of vintage and harvest. But these kinds of feeling are more than different, they are antagonistic; the more man is absorbed in sensuous enjoyment of the world, the more neglectful he will be of its higher meanings. Oriental thinkers recognized this truth and as usual exaggerated it. Their poetic love of Nature went hand in hand with an unrelenting asceticism. To them the world reeked with pain and woe. Nature was a cruel illusion, a feverish dream. But none the less the dream had an ineffable meaning and its interpretation was music to the soul.

III. *The Imitative Arts*

Furthermore, a grave artistic peril lurked in this poetic interpretation of Nature which cast such a lustre over Indian art. This profound sense of the causal unity or interdependence of things was always in danger of being exaggerated into the negation, or, at least, the neglect of their differences and individuality. Like science, the perfection of art demands the equilibrium of the two complementary tendencies of thought; it must be inspired not only by the impulse to divine the causes, the origin and hidden unity of things, but also by the counter-impulse to portray the visible results, the actual ever-changing things precisely as they are.

But the Hindu had as little regard for exact, realistic imitation in art as for patient observation in science, and for the same reason. He distrusted

the senses; much study of phenomena led only to bewilderment and delusion; the true meaning of the world was to be found only by the flash of inspiration, the first swift glance of poetic instinct. Or, as the Sankhya philosophy puts it: "Nothing is more modest than Nature—saying 'I have been seen,' she does not again expose herself to the gaze of the soul."

Painting and Sculpture. This slight regard for imitation explains the relative rates of progress made by the several arts in India. In the specially imitative arts, painting and sculpture, no great success has been attained. In painting, indeed, hardly anything notable has been accomplished. In sculpture the chief advance was probably due to Greek influences that began to be felt after Alexander's invasion, and even here the only great works are the statues of Buddha—ideals of repose rather than ideals of life-like action, such as those which the wonder-working genius of Greece cut from the motionless stone.

Prose. This scorn for exact imitation also explains the strange fact that Hindu literature is almost exclusively poetical in form. Ordinarily, poetry comes first, then prose. But in a quite early period of Indian culture a simple and compact prose had gradually been developed, but later on "this form is abandoned and a rhythmic one adopted in its stead, which is employed exclusively, even for strictly scientific expositions." [5] There are, indeed, some fragments of prose, but they are always inter-

woven with rhythmical portions; the philosophical Sutras, also, are so condensed and technical as to seem rather algebraic symbols than true prose. The Buddhist legends are likewise in prose, but they were written in a peculiar language. In fine, prose-writing was completely arrested in the course of its development and declined altogether. Anything more clumsy than the prose of the later Indian romances and of the Indian commentaries can hardly be.[6] These facts, attested by the highest authority, seem inexplicable in the case of a people so advanced in culture, so profoundly thoughtful as the Hindus. But from our present point of view the explanation is clear as crystal. The special use and function of prose is to express clearly and precisely the differences, variations and individuality of things; and all these the Indian emphasis upon causal unity was ever striving to ignore.

Continuous Decline of Realism. "The great and golden rule of art as of life," it has been well said,[7] "is that the more distinct and sharp and wiry the outline the more perfect the work of art. * * * Raphael and Michael Angelo and Albert Durer are known by this and this alone." But this precise, clear-cut imitation of reality was more and more neglected in Indian art. "Closing the doors of the senses," became the one supreme formula for attaining the beautiful.[8] The enthusiasm for the unseen led more and more to the caricature of the seen. The twilight of mystery darkened into a midnight of enigma and self-contradiction. Sym-

bol was added to symbol, life-likeness disappeared, the grotesque and monstrous took the place of Nature's simple beauty.

IV. *The Non-imitative Arts*

It follows as an evident corollary from what has already been said that the Indians would be far more successful in the non-imitative than in the imitative arts. But it may be well for a fuller verifying of our law to point out a little more in detail the secret of their success.

Music. The boundless veneration for the Vedic hymns was a constant spur to musical study; there at least there could be no "closing of the doors of the senses." And so from the earliest days research into the mysteries of rhythm was carried on with an incredible patience and ardor. The Brahmanas declare that even the harmony of the heavens had its origin, its fundamental cause in the harmony which pervaded the "eternal" Vedas before time began.[9] Centuries afterward the Pythagoreans, who, as is now known, borrowed so much from India, re-echoed this belief in their famous doctrine concerning "the music of the spheres." But in less mystical and speculative ways European music owes much to India. From her were derived the chief practical improvements in Greek music, and, in a later period, her musical art was carried by the Persians to the Arabians, and by the latter finally introduced into Europe. Thus in music, as in

mathematics, India has been the world's first great teacher.

Architecture. The building art has to deal with the most intractable materials in large masses; it must adapt itself to utilitarian designs, must make large use of experiment, exact measurement and other mechanical aids. Thus architecture, from its very nature, necessarily tends to foster the realistic spirit. And thus it placed a heavy restraint upon what we have seen to be the peculiar vice of Indian art—that excess of the unifying impulse which sacrifices distinctness and exactitude to some wild dream of the grotesque or the formless. This is the philosophic explanation, I think, of the well-known fact that India continued to excel in architecture even when other arts were decaying. A recent historian, speaking of the period beginning with the seventh century A.D., says that its history is "a melancholy record of degradation and decadence in government, literature, religion and art, with the *exception of temple architecture.*" [10]

Of course we cannot enter here into all the complex, obscure details of Hindu architecture, nor is there any need of it. Our law is sufficiently verified by appealing to a single feature of that architecture—but that its crowning feature, its noblest and most characteristic creation. When the epic poet would describe Ayodhya, the ideal city, he sang of its "stately palaces with domes like the tops of mountains." [11] And surely that was the masterstroke of the unifying impulse in Indian architecture

—the dome, co-ordinating every lower part and detail, and lifting above them a symbol of infinite unity borrowed from the very skies.

NOTES

[1] Lassen, *Indische Alterthumskünde,* II. 511.

[2] The Vedic Pantheon had only a very few evil gods; and these are not worshipped nor even propitiated, but unconditionally abhorred by men, fought and conquered by the Powers of Good. Ragozin, *Vedic India,* 134.

[3] Humboldt, *Cosmos,* II. 52. My obligations to Humboldt on this theme are very great.

[4] Wheeler, *History, India,* II. 240.

[3a] Mahaffy (*Silver Age of Greek History,* 28) claims Hindu drama greatly indebted to Greek, but ignores its crowning peculiarity noted above.

[4a] Macdonnell, *Hist. Sanskrit Literature,* 343 and 353.

[5] Weber, *Hist. Indian Literature,* 182.

[6] *Ibid,* p. 183.

[7] William Blake quoted by Dowden (*Studies in Literature,* 87).

[8] *Bhagavad Gita,* VII. 165; and many other places.

[9] Weber, *Hist. Indian Literature,* 23.

[10] Smith, *Early History of India,* 301.

[11] Ramayana in Wheeler's *History of India,* Vol. 2, p. 3.

CHAPTER V

THE BUDDHISTIC REVOLT

I. *The Doctrines of Buddhism*

The simple truth which I seek to establish in this chapter is that Buddhism in India was a revolt and not a reform. Simple as it seems it will, if proved, throw a good deal of light upon the long and perplexing controversy concerning the relations of the Buddhistic and Brahmanic religions.

A development so one-sided and exaggerated as that dominating Indian life and thought would inevitably invite the rise of the counter-impulse. There must always have been more or less of vague discontent; and this dissenting sentiment was finally organized into system by the genius of Buddha. But the new movement introduced no really new and vital principle. It was but the outward revolt of men who were still inwardly enslaved by the prevailing impulse. To prove this let us first notice some of the chief Buddhistic doctrines.

Buddhahood. On its surface the doctrine of Buddhahood seems an amazing exaltation of that human individuality which the Hindu sense of de-

pendence had so belittled and depressed. The Greeks, boldest of all champions of individualism, stopped at the doctrine of apotheosis—the elevation of exceptional men to the rank of divinity. But Buddhism teaches that any man, by his own unaided efforts, may attain a summit of glory and perfection upon which even gods gaze with envy. The gods desire to become Buddhas, but they can gain those sublime heights only by becoming men. When a man attains this supreme estate, then the gods worship him, the universe shouts for joy, the ocean becomes sweet and lotus-wreaths hang from the sky.

And we are further told that "the Buddhas, who have been, are, and will be, are more numerous than the grains of sand on the banks of the Ganges." [1]

But in all this no real honor was done to human individuality. Thrusting aside the whole confused controversy concerning Nirvana, one fact remains indisputable; this supreme estate of Buddhahood could be attained only by the surrender of all that constitutes true individuality. Volition, desire, memory, consciousness—all these are put off by the aspiring soul on its way to become a Buddha. Practically then these gigantic promises are a hollow mockery. The old Brahmanic negation of individuality is merely put in another and absurder form.

Theology. So Buddhistic atheism might seem at first view to flatly contradict the old Indian sense

of dependence upon the Infinite. But really it does nothing of the kind. It merely strips the Infinite of every spiritual or positive attribute and retains it as blind, abstract causality or Karma. Thus, as will be shown in treating of Buddhistic pessimism, instead of the Indian sense of dependence being abolished or even its worse exaggerations checked, it is made a still more crushing burden.

Sacrifice. The Buddhists also rejected what was merely formal and ritualistic in orthodox sacrificialism. But the Brahmans themselves had, virtually, done that long before. What the Upanishads had taught esoterically, the Buddhists had preached openly; partly through excessive veneration for animal life,[2] partly to injure Brahmanic ascendancy. But the essence of the sacrificial idea the Brahmans conceived as self-sacrifice, ascetic renunciation. And surely the Buddhists fell no whit behind their rivals in ascetic extravagances. Think of the five hundred princesses who, according to the Buddhist legend, gave up their palaces, their wealth and life of luxury and came "with bleeding feet, covered with dust and half-dead," to seek the cloister and the beggar's bowl.[3] Instead of abolishing, Buddhism immensely expanded the sacrificial sentiment in India, *organized* it into a vast monastic system.

Buddhist Ethics. Most scholars seem now to agree with Weber that the essential teaching of Buddhism "is entirely identical with the corresponding Brahmanical doctrine." There is a tendency, however, to claim for Buddhism an ethical

superiority.[4] But I am unable to find any marked difference except an increased emphasis upon the sanctity of animal life. Like Jainism it regarded the life of an insect as entitled to no less respect than that of a man. In practice, indeed, the sanctity of animal was placed above that of human life, and the absurd spectacle was sometimes witnessed of a man being put to death for killing an animal or even for eating meat.[5] It is impossible for me, at least, to believe that any such absurd appreciation of values as that forms a real advance in morality.

Pessimism. But by far the most familiar feature of Buddhistic morality is its pessimism. It is also its most persistent feature; there is no chance here for the usual dispute as to what was primitive and what was subsequent corruption: from first to last pessimism remains the centre and the circumference of all Buddhist teaching. What caused it to assume such enormous proportions is a problem oft discussed but never solved, except by some vague references to imaginary climatic influences.[6] But here again our philosophy offers a simple and satisfactory solution.

According to the orthodox Brahmanic philosophy, Brahma the Infinite Spirit was the only reality: all finite things were Maya or illusion. But Buddhism discarded Brahma also as mere illusion; the only reality left was Karma, abstract causality, the endless circle of pain producing pain. According to the Buddhist view, *the sole reality is Pain.*

There was some faint, far-away gleam of hope in

the Brahman's prospect of awakening from his dream into mystic union with the One Soul: but absolutely none in the prospect of awakening into an existence where nothing existed but Pain.

From all these considerations I think we may safely conclude that Buddhism was a revolt, not a reform, that it only riveted tighter the chains it sought to break.

II. *The Rise and Fall of Buddhism*

From the above study of the internal features of Buddhism as a system of thought the transition is easy to a historical explanation of its external fortunes. Evidently the military power or warrior caste would naturally lean towards a realistic, utilitarian movement—the counter-impulse to that which dominated India. The power of the sword looks mainly to immediate, visible *results*: it deals with the stern, ever-present facts of life and death; when it thinks of causes it regards them solely as *means to an end*. From this under-current of tendency inherent in the warrior caste Buddhism arose.

"Everywhere in India," writes a Chinese traveller,[7] "the kings had been firm believers in the Law." And the reasons for this royal devotion to Buddhism are not far to seek. At that time the constitutional checks upon the conduct of a king were only such as were imposed by the presence of the Brahman. The Rajah was regarded as a divine administrator

of the law, but the law was to be interpreted by the Brahmans. He was a despotic sovereign, but he was restrained in every direction by religious obligations and controlled by Brahmanical advisers.[8] "If the Rajah is unjust, untruthful and *unkind to the Brahmans,*" said the Institutes of Manu, "his reputation will be like a lump of ghee in the river." [9]

It was but human nature that the kings should grow tired of much priestly surveillance and welcome the Buddhistic revolt against Brahmanic ascendancy. But recent researches have thrown so much light upon the obscure history of early India that we can go farther than this. We can discern, I think, what kind of kings were most apt to turn Buddhists, and what motives specially actuated them. And thus we can show a quite minute correspondence between the historic facts and what our theory demands.

And first, the kings who thus revolted were not ordinary Rajahs, sovereigns of petty principalities, but great kings, men of vast ambition and even of genius who now and then rose to a truly imperial power over divided India. Such, for example, was the famous Asoka, who, according to a recent historian, "made the fortune of Buddhism," coming to its support when, more than two centuries after the death of its founder, it was still only one of many obscure sects struggling for existence and survival.[10] Two or three centuries later came another great conqueror, Kanishka, whose renown

in Buddhist annals is scarcely less than that of Asoka. To these two great monarchs, together with Buddha, belongs the honor of having been the creators of Buddhism as a world-wide religion.

For, secondly, men with their imperial power and genius not only resented priestly interference, but had a natural desire to rule over the spiritual as well as the secular life of their subjects. And so under their supervision the two Great Councils were held which gave to Buddhism its final form.

The attitude of Buddhism towards the caste system was also most congenial to the great emperors. The Vishnu Purana speaks of a period probably not long before Alexander's invasion—when the reign of "high-born" princes ended and that of princes of the Sudra caste began. Sandragupta the grandfather of Asoka was an adventurer of this low caste;[11] and the dynasty to which Kanishka belonged were casteless foreigners. Note, however, that the caste system as a social institution was never disturbed by Buddhism: it was recognized as the ground-work of the political fabric, as a part of those inevitable ills which man must endure until he is released from the chain of births and the misery of existence. The social reform ascribed to Buddhism by some writers[12] went no farther than to apply a sort of balm to the wounded pride of imperial adventurers.

The Sangha. Buddhistic monasticism also might well meet with favor in the sight of imperial despots. Its priests secluded in their cloisters were isolated

from the practical affairs of life and gave but little trouble. The Brahman on the contrary for the most of his life was a householder and intensely interested in public affairs. When Alexander attempted the conquest of India he was forced to treat the Brahmans with great severity, we are told, because with patriotic fury they urged the people on to resistance and revolt.[13]

Other characteristics of the Buddhist polity might be noted, but perhaps enough has been said to show that it was but a phase of Indian development externally modified so as to meet the exigences of imperialism. But its fundamental principles were radically identical with those dominating the whole Indian movement. When the last of the great monarchies fell Buddhism disappeared, or rather departed into more monarchical lands; and Brahmanism was left without a rival.[14]

NOTES

[1] Hardy, *Manual of Buddhism*, 89.

[2] Smith, *Early History of India*, 159 and 167. Asoka categorically prohibited only bloody sacrifices. Their renewal was the usual sign of a Brahmanic reaction (p. 179 and 266).

[3] Hardy, *Manual of Buddhism*, 311.

[4] Hopkins, *Religions of India*, 479. Hopkins asserts that Buddhism is "permeated with an active altruism," while Brahmanism never got beyond a negative one.

[5] Smith, *Hist. of India*, 156.

[6] Oldenberg (*Buddha*, 11) is the ablest supporter of the climate theory. But ably refuted by Hopkins (*Religions of India*, 315). Hopkins, however, absurdly maintained that Buddhistic pessimism, "so far as concerns earth," also pervades Christianity (p. 316).

[7] Fa Hien, *Buddhistic Kingdoms*.

[8] Wheeler, *History of India*, II. 587.

[9] *Manu*, VII. 34. "Every morning the Raja should rise at early dawn

and respectfully attend to Brahmans who are versed in the Vedas and in the science of morals" (35).

[10] Smith, Early History of India.

[11] Muller, *Chips from a German Workshop,* I. 22.

[12] Burnouf, *Introduction a l'Histoire du Buddhisme,* I. 14 and 217. St. Hilaire, *Du Buddhisme.*

[13] Plutarch, *Alexander,* LIX. and LXIV. See also Shahrastani, *Religionspartheien,* II. 374.

[14] Weber (*Ind. Literatur,* 248, also *Ind. Studien,* III. 132) regards Buddha's innovations as mainly speculative. Koppen, *Die Relig. d. Buddha,* II. 125, regards them as mainly ethical and practical. Vassilief, *Le Bouddisme,* 12, etc., considers Buddha a mere enthusiast, whose whole thought was crude and vague. Cunningham, *Bhilsa Topes,* 167, finds the cause of Buddhism's failure in its monasticism. Rhys Davids, *Ind. Buddhism,* on the contrary, counts that the chief source of its strength. As for the common view that the Buddhists were expelled by persecution, Barth shows (*Religions of India,* 133-5) that they were the persecutors rather than the persecuted.

CHAPTER VI

SOCIAL EVOLUTION IN INDIA

I. *Political Structure*

The external or political structure of Indian society was feudal. And here again the facts of history precisely correspond with what might be deduced from our fundamental principle. In the one-sided and exaggerated development of Indian life, its engrossment with unseen, ultimate causes, its absorption in the spiritual and the eternal, made it naturally neglectful of the external structure of society, of forms of government and modes of administration. It was enough to revere the ancient customs and to submit humbly to the divine decrees. A man's station in life, his good or evil fortune, the virtue or vice of his rulers, all external things were but the products of the endless process of moral causation.

Feudalism. Thus the Aryan tribes preserved their original constitutions modified somewhat, of course, by increase of wealth and culture and other changes coming through the conquest of India. Now and then short-lived empires arose, but even they were radically feudal like the German Empire

in mediæval Europe for example. But there is one vast difference between Indian and European feudalism which must not be overlooked. In feudal Europe a certain unity of thought and feeling was created by a vast spiritual hierarchy with the pomp and splendor of which we are all familiar. But the Brahmans had no such aid: each stood alone; and yet throughout all India they developed a marvellous unity of faith from which neither Buddha nor any other sectary ever essentially departed and which still endures. It is another instance of India's indifference to the external.

Political Conditions. So much unconcern about political forms and methods would seem to give large openings for tyranny and extortion; and yet all the foreign travellers whose accounts have been preserved speak in most glowing terms concerning public affairs in India. The lavish praise bestowed by the Greek ambassador Megasthenes is too well known to need more than mention here. Seven centuries later the Chinese traveller, Fa Hien, paints an equally pleasing picture of the government of Mālwā; the people lived happily under a government that did not worry; "they have not to register their households or attend to any magistrates or rules"; taxes were light and the people were left free to prosper each in his own way.[1] Two centuries later another Chinese traveller repeats substantially the same story of light burdens and an easy-going government. He tells also of being present at an assembly which the king held every five years for the

purpose of giving away in charity the surplus that had accumulated in the royal treasury during that period. Half a million people gathered: seventy days were consumed in bestowing gifts upon the poor and needy of all sects alike; even the royal jewels and robes were given away, so that at the end the king had to borrow a second-hand garment for his own use.[2]

Such were the politics of India in the golden age of her literature, philosophy and art.

II. *Labor*

But the true centre of interest in all social studies is not the external or political frame-work of society but its inner life as reflected in the industrial activities of the people. What then is the law governing the industrial movement in India?

The basis of this law is to be found, I think, in the evident fact that labor is the cause of wealth. That does not mean that labor is the sole cause; other agencies may co-operate; but nevertheless human labor and wealth are cause and effect.

Law of Indian Industry. But we have seen so far that the law governing Indian civilization is that of extreme emphasis upon causes and a corresponding neglect of results. The remainder of this chapter will be devoted to showing that this law is still more clearly and fully verified in India's industrial history. When left free and untrammelled she has always exalted labor; and, on the other hand,

she has discouraged that acquisitive or trading impulse which cares only for the results of labor.

The Exaltation of Labor. The present wretchedness of India's laboring classes is so well known that to speak of her ever having exalted labor may seem a palpable absurdity. But we must remember the utter ruin that was wrought in her civilization by the Mahometan conquest centuries ago. To do her justice we must compare her life with that of Greece or Rome at corresponding periods of time. And in industrial art her success was as marvellous as their failure was complete. She discovered—what Greece and Rome never learned—the great secret of training her people to habits of patient, skilled, voluntary labor. In that respect she did even more than modern civilisation has been able to accomplish. Under the most unfavorable conditions that can be imagined, in a climate where the incentives to labor are slight and everything predisposes to languor and repose, she taught her people to labor skilfully persistently without converting them into slaves.

Furthermore, India thus educated in Industry became the workshop of the world. She wove the cottons and silks worn by the people of Greece and Rome: she supplied in the main the few luxuries of a manufactured kind that ancient civilisation demanded. And during the Christian era she still continued down to a comparatively recent period to be the world's chief work-shop. During the Middle Ages the great Italian cities rose to wealth and

power through their traffic in the manufactures of the East. Northern Europe finally learned to supply itself with woolens, but in the manufacture of silks and the finer cottons India kept control of the market until the latter part of the eighteenth century.

These are palpable facts, although their significance has been lost upon economists and historians. By what means, then, did India thus educate her people to these habits of skilled, victorious toil? Some of the chief means were as follows:

Absence of Slavery. In Greece, popularly supposed to be the cradle of liberty, the slaves outnumbered the free. But when the Greeks first came in contact with India they were greatly surprised to find that there was no slavery there.[3] Modern scholars, however, have noted that there is no period of Indian literature in which there is not mention of slaves; and so have wondered why the keen-eyed Greek ambassador, Megasthenes, failed to find any during his long residence in the country. My explanation is this: What Megasthenes saw was *not* slavery in the Greek sense and hardly in the modern sense of the term. The so-called slaves were rare: they were merely hereditary house-servants in the families of the rich; "their social status was above that of hired laborers": [4] they were not chattels; they could hold and inherit property like other people.[5] Considering the indescribable horrors of the slave-system in Greece or Rome, Megasthenes was fully justified in declaring that there was no slavery in India.

That then was one source of her industrial excellence. Her toilers were free.

Labor as Religion. Again, "in India work is always regarded as a religious function." Thus every artisan "takes that pride and pleasure in his work for its own sake which are essential to all artistic excellence and perfection. * * * It never enters into his head to work for merely mercenary motives or with any idea of making money. * * * It is the sacred duty for which God has created him." [6] Somehow the humble Hindu artisan has been made to feel dumbly that "Art is man's expression of his joy in labor." [7]

Reverence for the Past. Again, skilled labor demands a long apprenticeship to routine and precedents. This also is made easy by the Indian impulse, retrospective, averse to change, revering the past and clothing custom with a divine authority. This clinging to the by-gone and routine doubtless has its disadvantages. But it certainly does train the human hand to perform wonders. The Hindu weaver, for example, uses a loom made of a few sticks and bamboo canes fixed in the ground: but long years of practice with these preposterous tools enables him to weave fabrics—marvels of delicacy which no modern machinery can rival.

The Caste System. But the industrial education of India was due, above all else, to her system of castes. This institution once so much reviled as the sum of all iniquities, is now better understood and its true value more appreciated. "Caste,"

writes a noted jurist,[8] " is but a name for trades or occupations and the sole tangible result of the Brahminical theory was to give a religious sanction for what is really a primitive and natural division of employments." At a still earlier date, Comte pointed out the benefits of caste as a means of technical education, "promoting as it does the transmission of skill, the preservation of inventions, and the division of labor." He notes also the honor "which the system paid to industrial ability by exalting into apotheosis its commemoration of ancient inventors who were offered to the adoration of their respective castes." [9]

Its Universal Acceptance. The caste-system then is society organized upon an industrial basis. As such it has been accepted by the people of India with hearty and virtually unanimous favor. Her poets seem never weary of declaring that "the confusion of castes is the gateway of hell." No sect or heresy—Buddhist or Jain or Sikh or any other of the many religious factions—has ever attempted to disturb the institution of castes. A high authority declares that the Hindus do not feel and perhaps never have felt their class restrictions as being in any wise burdensome or still less a disgrace to them, and the lowest man looks upon his caste as a privilege as high as that of the Brahman.[10] Nay, we are even told that "the lower the caste, the more tenacious are its members of their own caste-rules, the more pride do they take in observing them and the more strict are they in enforcing them." [11]

Castes as Trade-guilds. In the happier days be-

fore India's decadence, the castes were as thoroughly organized as the guilds of Mediæval Europe. They had their presidents, and other officials; and these were often summoned by the king for purposes of consultation or to attend him on his royal tours of inspection.[12] Thus they formed that democratic element which pervaded Indian government even when it seems on the surface completely absolutist.[13] The castes also supervise the conduct of their members, arbitrating even in domestic differences between man and wife: they ensure good and faithful work, prevent undue competition, protect their members and assist the needy ones—in fine, inspire all with such a sense of religious fidelity that lowly workmen will suffer death rather than, by neglect of duty, bring a stigma upon their caste.[14]

In thus admiring the caste system, I am not unmindful of its evils. Grand in many respects, it still bears that characteristic mark of Indian development—one-sided and excessive emphasis upon the impulse of causality or dependence. It based industrial organization upon the principle of heredity. And thus it placed man under a double bondage—first through Karma and then through parental inheritance—under that terrible chain of causality which enmeshed the universe.

But to this we shall return hereafter. In the meantime let me quote the opinion of a very competent observer, long resident in India: "I firmly believe caste to be a marvellous discovery, a form of socialism which through ages has protected human society from anarchy and the worst evils of

industrial and competitive life: it is an automatic poor-law and the strongest form known of trade-unions."[15]

III. *Restrictions upon Commerce*

Indian culture, then, exalts labor and depreciates wealth: it emphasizes the cause and neglects the result. Of course this depreciation of wealth must not be taken too absolutely. As the Mahabharata wisely affirms of man:

> "One thing alone within him ne'er grows old—
> The thirst for riches and the love of gold."

Nevertheless, contempt for riches was India's ideal, and she came nearer to realizing that ideal than ever has any other land. No other moral code or social system has ever so educated and stimulated labor without engendering the greed of gain. Nowhere else have such multitudes sincerely devoted themselves to the ideal of poverty instead of wealth. In Indian literature the mildest, most innocent forms of acquisitiveness are described as avarice and denounced as deadly sins. Even the desire of existence and the yearning after immortality were often stigmatized as the root of all evil. The Hindu poet knows of no higher title to bestow upon his heroes than that of "a despiser of wealth." And the Buddhistic literature is even more monotonous than the orthodox, in its praise of mendicancy and its warnings against the lust for riches.

Nor was all this merely theory and sentiment. In practical life it almost paralyzed the commercial spirit. Aryan India, as we have just seen, was the chief workshop of the world; but her wares were carried to foreign markets by foreigners and the aboriginal races. Once great store was set upon the fact that the names of the articles brought by King Solomon's ships were not Hebrew but Sanskrit. But recent researches show that these names were not Sanskrit but Dravidian. Indeed, it was a part of an orthodox Hindu's religion to stay at home. India was holy ground and all other lands unclean; to visit them was to run the awful risk of losing one's caste.

Inland Trade. Even domestic commerce on any large scale seems to be mainly in the hands of such heretical sects as the Jains[17] and more recently the Parsees. Not, of course, that orthodoxy prohibits trade. But there is in the moral sentiment, the ancient institutions and customs of India that which weakens if it does not deaden the commercial spirit. Let us note some of these causes.

Restricted Rights of Property. One great barrier to the spread of commercialism was the strict limitation upon property rights. The Indian impulse of causality emphasized the common dependence of all upon the unseen and upon each other; and so believed that economic values were mainly of collective rather than individual origin. Hence India clung to the primitive communistic conceptions.

Roman law ruled by the opposite impulse—as we

shall see—gradually enlarged the rights of the private possessor until it finally gave him complete and exclusive ownership. But the Indian intellect, with all its dreaming, seems hardly to have dreamed of any such relation as a title in fee simple. In India the complete ownership of land is lodged with no individual; it is divided and floats vaguely about between the tillers of the soil, the village community and the king.[18] Thus the tenures of land approach very closely to the feudal tenures of mediæval Europe.[19] The holder cannot sell or even mortgage his interest without the consent of the village community and the purchaser takes it burdened with all the original restrictions and obligations.[20] Such conditions plainly were not conducive to commerce. In fact, we are told that the sale of lands—the transfer of even the feeble possessory title of the holder—was something virtually unknown before the advent of British rule.

There were, of course, exceptions to this—occasional transfers of gardens, etc.—but the general rule holds. "Mother Earth loves not to be sold," said the Vedas.

Wills. Note also that the testamentary disposition of property so thoroughly developed in Roman law was unknown in India. In Hindu law there is no such a thing as a true will. "The individual had no full, undivided control of his possessions when he was alive, much less when he was dead."

Restraint of Contract. Another barrier to commercialism was the Hindu aversion to contract or

bargaining. In India the power of contract is limited on every side: it is limited by the minute archaic formalities upon which its validity depends—by the counter-claims of the community, the family and even the distant kinsmen—by that communal nature of property which leaves the individual almost without a clear and simple title to anything. And difficult as it is to make a valid contract it seems still more difficult to get one fulfilled. It is said to be a quite general practice to disregard all agreements until performance of them has been decreed by a court; the contract seems to be considered as not completely binding until the civil power has interfered to enforce it.

In other words, India refused to substitute contract for custom. It was another sign of the causal impulse, retrospective, trusting in that moral order of the universe which had ordained of old what was proper between man and man. Hence India has always revered custom as a sure defence against the wheedling of the weak by the sly and crafty. Even the Indian despot has always had to yield to custom; "he took as his revenue a prodigious share of the products of the soil, he levied great armies, he executed great numbers of men; but he never made a law. He never dreamed or could have dreamed of changing the civil rules under which his subjects lived."

Fixed Prices. Closely connected with this antipathy to contract or bargaining is the Indian insistence upon stability of prices. Nothing stimu-

lates the greed of gain so much as the constant fluctuation of prices produced by the accidents of trade or the cunning of traders. But in India before the rule of the commercial English began, prices were determined by immemorial usage. Even to this day the native artisan holds his wares at a fixed price established by custom; and it is said that he would always rather change the quality of his goods than the customary prices.

Now, doubtless, this characteristic, and the others just noted, are all very archaic. And they are not, perhaps, economically wise. But equally unwise is that wild, unbridled passion for independence and gold which makes us blind to what was really good and true in the Indian ideal.

At any rate my thesis is proved. Indian civilisation, before it was wrecked by the Mahometan invasions, had certainly lifted labor to a height unknown in any other ancient society. And at the same time, in the many ways just enumerated, it had scorned wealth. In fine, it had emphasized the cause and correspondingly neglected the result.

Thus India in all the spheres of her life—religion, morality, mathematical and physical research, art, politics, commerce and industry—has moved on one fixed line of development almost as steadily as the stars in their courses. That development, especially in its earlier ages, led to much that was brilliant and noble. Nevertheless it was under the fatal law of one-sided, excessive development and consequent degeneration. It had no capacity for reform. Its

inevitable end was torpor, superstition and despotism. In fine, it developed one side of human nature and paralyzed the other.

And our proof, it seems to me, has followed a true scientific method. There has been no arbitrary selection of special facts favoring our theory. Every sphere of Indian life has been studied, and the essential features of each presented. Let then some one come forward and show what feature has not been simply and clearly explained.

NOTES

[1] Fa Hien, *Buddhistic Kingdoms.*
[2] Smith, *Early History, India.*
[3] Megasthenes, *Indica.*
[4] *Journal Roy. As. Soc.,* 1901, p. 867. *Economic Conditions in Nor. India.*
[5] Hopkins, *Religions of India,* 88.
[6] Monier-Williams, *Brahmanism and Hinduism,* 463.
[7] Morris (*Architecture, etc.,* 175) entitles this "Ruskin's idea, than which no more important truth has ever been stated."
[8] Maine, *Village Communities,* 56-58.
[9] Comte, *Positive Philosophy,* II. 198.
[10] *Enc. Brit.,* IV. 210.
[11] Monier-Williams, *Brahmanism and Hinduism,* 453.
[12] *Journal Royal Asiatic Soc,* 1901. *Economic Conditions in Nor. India.*
[13] Wheeler, *History of India,* II. 80; 160; 653. Great Council consisting of "whole body of citizens" at nomination of new Raiah. Mrs. Rhys Davids also thinks kings elective in early times, *J. R. A. S.,* 1901, p. 865.
[14] Hopkins, *Religions of India,* 479. *Note.*
[15] Townsend, *Asia and Europe.*
[16] *Mahabharata,* XIII. 3676.
[17] Hunter, *History of India,* 83. "The Jains are usually merchants or bankers."
[18] Elphinstone, *History of India,* I. 141, *seq.*
[19] Tod, *Feudal. System in India, J. R. A. S.,* V. 42.
[20] Maine, *Ancient Law,* 256.

BOOK II

CLASSICAL CIVILIZATION

CHAPTER I

CLASSICAL RELIGION

I. *Introductory*

Classical civilisation, in utter contrast to that of India, places a one-sided and hence excessive emphasis upon results. Not, of course, that the concept of causality is categorically denied; but it constantly tends to fade first into the idea of a means to an end and then into the idea of a mere antecedence in a more or less orderly succession of events. And so at last nothing seems of much significance except the series of sensible results.

From this point of view, it seems to me, a strictly scientific comparison of the Indian and classical civilisation becomes possible. They are seen not as a confused conflict of vague opinions, but as definite movements along *one fixed line but in opposite directions.* And when in each case we find this constant direction of the movement revealing itself, not only in the several spheres of life—religion, morality, science, art and social organisation—but also in the different subdivisions within those spheres, it would seem as if we had reached an induction almost quantitative in character, or at least one as fully verifiable as those of the more complex among the physical

sciences. And if so, then the basis for a real science of history has been gained.

Greek Dissent. But one great difficulty must not be overlooked. It is the glory of Greece that she gave more welcome to dissent and protest than any other ancient people. Many Greek thinkers stood aloof from the prevailing tendency and the splendor of their genius has made their revolts more luminous than the ruling system against which they revolted. Hence modern criticism, without any adequate philosophy of history, has not distinguished between the generic and the individual, the dominant trend and the protest, the main current and the eddies in the stream. Everything has been jumbled together as characteristically "Greek." And so our modern view of Greek civilisation has become a chaos of incongruities and contradictions concerning which almost any general proposition may be proved or disproved with equal ease.

But this difficulty is overcome the moment we thoroughly comprehend it. The main current is too strong, too deep, wide and constant not to be readily distinguishable from the occasional eddies in the stream. More than that by carefully distinguishing between the two, we hope to throw a new light upon the nature of both.

II. *The Finiteness of the Gods*

The very slight hold which the conception of causality had upon the Greeks and Romans is clearly

shown in their indifference and even antipathy to the conception of the Infinite. The thought of a finite or limited cause immediately drives us back to the thought of that which limits it. The mind cannot rest until it reaches the thought of that which is limited by nothing else. We may familiarly speak of finite things as causes; but they are really but factors in a causal process; a true, full cause in the strict sense of the term, must be infinite.

But the Greek and Roman conception of causality was altogether too feeble to foster this conviction of infinitude. And therefore the Greek gods are irremediably finite. They are not omniscient although they know much; they are not omnipotent although they have great power: they are not omnipresent but can move swiftly like the light. Even their immortality is limited and finally comes to an end. Their moral finiteness is still more conspicuous; they are sensual, jealous, meddlesome, sometimes malignant and all too often liars.

With the Roman deities the case was still worse. The genius of Greece threw a wondrous veil of beauty around the personified abstractions which were worshipped as divine. But at Rome we see these abstractions in all their crude simplicity. There, any common noun or adjective might achieve apotheosis; and thus there came to be, for instance, gods of foul air, fever and even theft.[1] No product of the generalizing process was too trivial or too sordid to be denied admission into the Roman pantheon.

It is true that India also adored many very finite gods. But with this difference. Underneath the Indian polytheism as its basis, and above it as the over-arching sky, was the conception of the Infinite. Even the meaner forms of the popular religion were subtly permeated with this conception: and among the more thoughtful classes it seems to have been almost the sum and substance of faith.

Pythagoras. But among Greek thinkers in the classical era the case was very different. In their speculations the conception of the infinite was under a sort of ostracism. Pythagoras affords a very notable instance of this peculiarity. He had travelled far and in some way come in close communication with the religion and philosophy of India, whence he borrowed many of the main features of his own system. But the great central conception around which Indian thought revolved had no attractions for him: and so in the famous Pythagorean tables of opposites we find "the finite" listed among the good, and "the infinite" listed among the evil and undesirable things. As we shall see, Pythagoras was the earliest and, if we except Plato, the most renowned of those dissenters who strove to reform Greek life by introducing Oriental idealism; and yet he rejects the very soul of that system.

Alexandrian Philosophy. Eight centuries after Pythagoras, Indian philosophy in all its fullness came pouring like a flood into the West through the gateway of Alexandria. Of this great movement Plotinus was the worthy leader. And a very em-

inent authority has declared it to be "one of the most important points wherein Plotinus differed not only from Plato but also from almost the whole of Grecian antiquity. * * * He has ascribed to the idea of infinity which even Philo feared to adopt, all that is best."[2]

In the third century after Christ, then, Plotinus ventures to introduce the conception of the infinite into Greek philosophy. But Plotinus is simply the representative of Greek thought in its decrepitude, leaning upon the broken staff of Hindu mysticism.

III. *The Classical View of Sacrifice*

We have already seen that in the Vedic view sacrifice had a strange, an almost weird and ineffable significance. Sacrifice was the principle upon which the cosmic order depended. Nay, more than that, the creation of the universe was an act of *self sacrifice* on the part of the Infinite.

But the Greeks and Romans had no such vision of earthly sacrifice as a mere image of the heavenly. They saw only the earthly offering made by human hands and valued it only for its earthly *results*. For them sacrifice was simply a commercial transaction, a bargaining with the gods. The Romans especially expressed this sordid mercantile view with their customary bluntness. They even thought it possible occasionally to over-reach a benignant deity; "and the human debtor always availed himself of such an opportunity to outwit his celestial creditor."[3] On

the other hand, it was necessary for the worshipper to avoid any mistakes in form which might enable the god to evade his part of the contract.[4]

Religion and Politics. If in private life Roman religion was so thoroughly commercial, much more was it so in public life. Every student knows how completely religion at Rome was made subservient to politics. Its solemn rites, auguries, sacrifices and festal days were but so much machinery wherewith the senate ruled the city. Indeed one writer has maintained that the Greeks were less successful than the Romans in political life because they were more religious. The Romans were troubled by no pious scruples; they reduced the sacred augurs into mere secret agents working for the magistrates and the senate. In fine, they never permitted their religion to hinder their "statesmanship." [5]

And there is undoubtedly much truth in this contrast of Greece with Rome. The close contact of the Greeks with the Orient could not but have influenced their religion, as we shall find it did their art and philosophy. Their piety was not all utilitarian—a mere balancing of profit and loss, a computation of results. What gives such majesty to the dramas of Aeschylus, for example, is a deep Oriental instinct for dependence: he paints every passion as but "a link in the great chain of causes forged by the inexorable will of Zeus." [6] Listen to Cassandra's song concerning the curse that clung to the race of Atreus: then contrast it with Seneca's boast that a Stoic sage was superior to God because he

owed his virtue only to his own efforts. The one seems an echo from the Indian faith in Karma: the other is the mad cry of a soul from which all sense of human dependence has fled.

Anti-sacerdotalism. With a wise economic instinct, the Greeks and Romans were not anxious for intermediaries in their commerce with heaven: "they who had business with a god resorted to the god and not to a priest." For the public sacrifices, indeed, priests were necessary but their duties were merely ritualistic [7] and in their most important parts were shared by magistrates and private citizens.[8] The priest was but a minor functionary of the state, elected or appointed like other officials, generally holding his office not for life but for a term of years and often only for a single year.[9] His position imparted to him no special dignity, much less made him an object of reverence: he was often consulted as a sooth-sayer or fortune-teller but rarely as an authority in theology or morals. Such slight reverence as Greece had for intellectual authority was reserved for her poets and philosophers; her priests were little more than janitors in her temples.

Thus, under classic utilitarianism, religion with its priests, sacrifices and sacred traditions had been reduced to a minor branch of politics.

IV. *Hopefulness*

The trend of Indian thought was towards explanation; always seeking for causes, it looked back-

ward, was *retrospective*. Classical thought on the contrary was *predictive*: it looked forward for results, valued causes merely as means to some end—as antecedents in a series, acquaintance with which led to a knowledge of the future. This antithesis between explanation and prediction is just now playing an important part in philosophic discussion, and I trust that much light will be thrown upon it in our survey of the scientific movement in the different epochs of civilisation. But here I use it only in reference to religion.

Oracles, etc. Probably no one will deny that divination was the most conspicuous and persistent factor in classical religion. Even the Orientals acknowledged the supremacy of the Greeks in this sphere; great monarchs like Croesus sent embassies to learn the secrets of the future from the Delphic oracles. And the Hindu astronomers acknowledged that the Greeks had been their teachers in some respects; but upon closer inspection it appears that these Greek improvements upon Indian science were mainly *astrological*.[10] So essentially predictive was the bent of Greek genius. And so in the dark days when everything else had decayed, faith in the oracles still flourished. In another way this persistence of the predictive element shows the engrossment of classic religion with practical results; in a recently discovered inscription, the citizens of a little town are enjoined to take the utmost care of the sacred place, "on account of the great gain derived from

the strangers who came to consult the oracle." [11] And where there were no oracles, even dreams would suffice to unveil futurity. In obedience to a dream the Emperor Augustus went begging through the streets of Rome.[12] In fine, as a French historian has well said, "the religion of the Romans was essentially an art—the art of discovering the designs of the gods." [13]

Optimism. But the art of prediction, to succeed, must be optimistic; human nature soon tires of Cassandras. Of late, however, writers have criticised the common opinion which has long ascribed to classical character a high degree of hopefulness. But these critics it seems to me, overlook the well-known fact that the sanguine temperament above all others is peculiarly liable to fits of extreme depression. It would be surprising then if even in a literature so serene and buoyant as that of Greece we did not find now and then what savors of melancholy or even of pessimism. The Greeks were not oxen always chewing the cud of contentment. They saw the darker side of life, its pain, disappointments and inevitable doom. But among the best Greeks hopefulness certainly predominated. Of the Athenians for example, even their enemies said that "they kept their hopes alive in desperate circumstances: if they failed in one enterprise their hopes rose anew in some other direction." Rome also was very optimistic; humiliated and crushed, as in the Punic wars, she did not despair. And the chief charm of her literature,

as Virgil illustrates [14] was this radiant confidence in her own golden future. She seems to have even communicated something of this spirit to the crushed and fallen nations around her so that at the opening of the Christian era a hush of expectancy had become the dominant note of all Western life.

Hopefulness is a charming grace. But a religion which consists of expectancy alone is very much like an inverted pyramid. And classic religion by surrendering all belief in the infinite, the causal and self-sacrificing, had narrowed its base almost to a point. "In Homer sacrifice is but, as it were, the signal for a banquet of abundant roast flesh and sweet wine; we hear nothing of fasting, of cleansing and atonement." Later the gist of religion according to Thucydides was recreation. He makes Pericles say: Moreover we have provided for our spirit very many opportunities for recreation by the celebration of games and sacrifices throughout the year.[15]

That would seem abasement enough. But in the next century religion sinks far lower. "The old simplicity of dedication is quite gone. * * * The victors no longer dedicate their offerings out of pure thankfulness of heart. The inscriptions with their long list of distinctions and their carven wreaths, become a means of advertisement or self-glorification. * * * We see the old simplicity and devotion being gradually overlaid with ostentation and show until nothing else remains." [16]

Advertisement and self-glorification. What could

more fully express the natural outcome of the classical engrossment with the results of religion?

NOTES

[1] Mommsen, *History, Rome,* I. 355. "Sank to a singularly low level of conception and of insight."
[2] Ritter, *Hist. Ancient Philosophy,* IV. 563.
[3] Inge, *Society in Rome, 2.*
[4] Mommsen, *History of Rome,* I. 225.
[5] Prof. Howard quoted by Willoughby, *Political Theories of Ancient World,* p. 230. *Note.*
[6] Lecky, *Hist. European Morals.*
[7] Lobeck, *Agloaphamus,* II. 259.
[8] Welcker, *Griechische, Götteslehre,* III. 35.
[9] *Pausanias,* IV. 33, 8, and *Athenaeus,* XII. 13. "Plato voulut que les prêtres changaasent chaque année." Brouwer, *Civilisation des Grecs.*
[10] Weber, *Hist. Indian Literature,* 255. The other improvement was the division of the Zodiac into signs, degrees, etc. And exactitude we shall find to be the Greek contribution to science.
[11] Mahaffy, *Silver Age of the Greek World,* 369.
[12] Suetonius, *Aug,* XCI.
[13] Pressense, *Hist. de trois premiers Siècles,* I. 192.
[14] *Ecl,* IV. Also *Georgics,* I. 20.
[15] Harrison, *Prolegomena, Greek Religion,* 1-2.
[16] Rouse, *Greek Votive Offerings,* 184-5. Also p. 351.

CHAPTER II

CLASSICAL MORALITY

I. *The Basis of Morality*

Probably no one will deny that the dominant note of Greek and Roman ethics is utilitarian. All the ethical schools bow before the Socratic principle that virtue is knowledge. To be virtuous is to have a correct appreciation of the consequences of conduct. Here then in the wide field of ethics the classical tendency is, incontrovertibly engrossment with results.

With this emphasis upon moral results, there went also a corresponding neglect of the cause or ground of moral obligation. For this, the supreme question in morals, classic antiquity had virtually no answer, but contented itself with vague assertions and rhetoric. My proof is as follows:

The Moral order of the World. It is the glory of India, as we have seen, that amid all her errors and failures, she somehow managed to hold fast to her faith in the moral order of the world. Far back in Vedic times she had indeed lost the chief jewel in that faith; and she had distorted the rest into her strange theory of transmigration. But still she kept her faith in an Infinite Cause that renders equal

and exact justice to all the sons and daughters of men. Even Buddha in his curiously subtile way clings to this faith in the Moral Order; and for that reason they will never understand him, who count him as an atheist.

But the Greeks and Romans, with their feeble sense of causality, could not keep this faith, this true ground of all moral obligation. Engrossed with results they saw much in human experience that seemed to contradict the belief in any moral government of the world. In the place of this belief, they put their monstrous conception of the Divine Envy. "The gods were jealous of man in whom they saw a dangerous rival. * * * They were envious even of the perfect happiness of man and wife." [1] The benefactors of mankind were also among the victims of divine jealousy. This horrible view was advanced not only by Homer but by Herodotus, Pindar and many others.[2] It is indeed a natural outgrowth of that aversion to the infinite, that idea of the finiteness of the Divine which pervades all classical theology.

Even when the Greeks tried to save the righteousness of the gods, they seemed only to make matters worse. Thus Aeschylus lays great stress upon the doctrine of the inherited curse descending from generation to generation. There seems in that some faint analogy to the Indian chain of moral causation; but in reality one main motif of the latter doctrine is to get rid of the injustice involved in the punishment of the guilty falling upon their innocent de-

scendants. So much the Indian writers expressly state. "A father, a mother, a son," says the Ramayana, "whether in this world or the next eats only the fruit of his own works. * * * Each of these by his own actions gives birth to good or evil."

Here then we have the great polar contrast between Indian and Greek ethics. India believes in the moral government of the world, puts that doctrine indeed in strange forms but still makes it the basis of all her thoughts and life. The Greeks and the Romans reject or doubt that doctrine; experience, they say, is against it.

Orphic and Platonic Ethics. Some critics, however, insist that a marked improvement in this respect was introduced into classical morality by the Orphic rites and the philosophic reformers. Their work I shall consider in a subsequent chapter on the Greek Protest. Here it is enough to point out succinctly my proofs that neither of these agencies had any really reformatory influence on classical ethics.

In regard to Orphism note first, that it did not even pretend to have any logical or rational basis; its faith was confessedly the wild product of drunkenness or hysteria. To the Hindu mind on the contrary, the moral order, the causal chain of Karma is the first principle, the postulate from which all else is logically deduced. Secondly, Orphic righteousness was wholly ceremonial: purity was gained by mere forms of initiation and magic; it was even hawked about the streets in the shape of indul-

gences.[4] Such things naturally disgusted Greek common-sense and even such philosophic radicals as Plato.[5] Thirdly, the real aim of Orphism was eschatological instead of ethical; it was a vain attempt to galvanize the dead or dying hope of immortality.

Concerning Plato I note here but a single fact, one however that seems to me entirely decisive. In the Laws Plato promulgates in very definite and precise terms, the doctrine of an evil world-soul.[6] This says Zeller contradicts the spirit of his whole theory. But that is a mistake. True, Plato in his earlier writings speaks with more reserve; but the most that his ardent admirers can claim is that "it would be difficult to say whether Plato does or does not assume a principle of evil in the world co-ordinate with the principle of good. At any rate, they claim, he makes the good principle "far the more prominent in his writings." [7]

This confessed dubiety is enough for my purpose. Plato was the greatest and wisest of all the dissenters from the ruling tendency of Greek thought and life; profoundly imbued with Oriental ideas he wished therewith to revolutionize Greek orthodoxy. But there were three insuperable obstacles preventing his return to that primitive faith in the moral order which India still retained. First, the idea of the Infinite repelled him as it did Pythagoras and the Greeks in general. Second, the idea of cause had faded into that of means to an end; thus it was vaguer than even Hume's idea of sequence for it lacked the scientific insight into invariability.

Third, the primitive view of divine sacrifice had been degraded into that of a bargaining with the gods. But these three—the Infinite, causality and self-sacrifice—I have proved are all essential to faith in the moral order of the world; and when the former had crumbled, it was impossible to retain the latter.

Hence Plato—a true Greek despite his Oriental proclivities—doubted. And since then belief in the moral order of the world has remained a matter of faith or tradition. In this volume, I believe, it has been fully demonstrated—not indeed from the conflicting facts of experience—but as a simple and evident corollary from the nature of thought.

II. *The Standard of Morality*

But we must not be understood as affirming that classical morality was utterly baseless. Let it be remembered that we have defined beauty as the *dim* revelation to feeling of a causality which has not been fully and clearly disclosed to exact thought. And this artistic recognition has been especially influential in the realm of morality. In all ages men have felt that virtue was beautiful and vice ugly. They have seen in righteousness and self-sacrifice the dim revelation of an Infinite will—a divine order governing the universe. And so in no age, savage or civilized, has morality ever been left without some basis, at least in the emotions of mankind.

And the Greeks, as the most artistic of all races, interwove this æsthetic element into their ethics with

an incomparable skill. They invested the moral life with all the radiance of a Fine Art.

Now undoubtedly there were some advantages gained through this blending of the good and the beautiful, especially among a people of so artistic a temperament as the Greeks. Still these benefits seem to me far out-weighed by the evils wrought through this identifying of categories so diverse as the good and the beautiful.

The difference between the two categories is certainly very great. The function of art, as we have seen, is to give dim intimations which appeal to the imagination. But the function of morality is to proclaim clear, decisive commands addressed to the will. And, therefore, the fatal tendency of artistic morality is to dissipate itself in exalted emotions instead of realizing itself in act. As light is beautified by dissolving itself into colors but at the same time is obscured, so the conviction of duty may be beautified by art, but it is also dimmed and weakened.

Among many proofs I select one that throws a glaring light upon my argument. The blackest blot upon the fame of Greece is the crime against nature. It first appears after the Homeric age, perhaps about 630 B.C., and continues throughout the whole Greek literature. Fathers assented to it in the case of their own sons. In Sparta and Thebes the vice was esteemed as making the lover desirous to perform brave deeds. In Athens it was licensed as a ready means of increasing the public revenue.[8]

"Philosophic ethics took but little notice of this

feature of Greek life. The attitude of Epicurus seems to be one of assent. * * * The early Stoics do not condemn it: neither do the minor Socratics. * * * Socrates opposed it but his reason is significant. It causes expense and trouble, he says, while it turns a man into a slave. Plato is ready to pardon it, but it only needs pardon because it is concerned with the body and marks a falling away from spiritual love. * * * Plato saw around him a lack of passionate devotion, and wanted to remedy the defect. So wide-spread was the crime against nature that he thought he saw in it the only means to accomplish his aim." [9]

Now manifestly this infamy had its origin in a diseased æstheticism, a morbid passion for youthful beauty. That then is the first count in the indictment against the artistic morality of the Greeks.

A second count is that all emotionalism is necessarily evanescent. In a while it bursts forth like a flame, then it vanishes. It has no stomach for that hard, ceaseless fight which duty has to wage against the myriad temptations of life. The whole fate of Greek patriotism, for example, is explained by this ephemeral character of emotionalism. The Greek sentiment of national unity was the product of art and imagination, the songs of Homer, the beauty of festivals and Olympic games. This poetic sentiment could hold the Greeks together under the stimulus of some sublime event such as the war against the Persians; but like all processes of the imagination, it was an inconstant force: it did not

exert a continuous pressure stifling the jealousies and bickerings of the clans and binding them into a permanent political unity.

Another case in point is that notorious excitability, fickleness and unrest, that feverish thirst for something new which characterized the Athenians. As one of their poets declared: "He who had been absent from Athens for three months was unable to recognise it on his return." [10]

In philosophic ethics also we find new proof of this volatility of all artistic morality. Plato, for instance, began by discovering that the ethical principle consisted in the contemplation of that supreme idea of "the Good" that sat enthroned above the other archetypal ideas of the universe. But this poetic personifying of mere abstractions did not fully satisfy even himself, and so like a true Greek he falls back upon another artistic conception of virtue as the harmony of the soul. Everything in the life of the moral man from infancy to old age is to be music. But what average man could endure music all the time?

Stoicism. Recent moralists have been inclined to discredit that sharp-drawn antithesis between Epicurean and Stoic ethics which for centuries had been regarded as self-evident. Wundt finds a close kinship between these two rival schools; "a certain similarity is noticeable in their fundamental views." [11] And the best English historian of ethics says more bluntly that the two sects merely made rival offers to the world of the same kind of happiness.[12] Grant-

ing all that I nevertheless see between the two sects a gulf very wide and deep. The Epicureans were fully conscious that the basis of the old Greek morality had crumbled; they accepted this fact cheerfully, nay, gladly; the intuitions of Socrates, the enthroned "ideas" and musical metaphors of Plato, the "golden mean" of Aristotle—were but the dreams of the artistic imagination; let them go: the true cornerstone of ethics is a refined, far-sighted egoism. The Stoics, too, were conscious of this ethical collapse: they knew that the old artistic morality of the Greeks was logically indefensible. But they scouted at logic "as a false guide leading only to pernicious subtleties." [12a] With logic or without it they would not surrender unconditionally to the egoism of a decadent age. So they thought; and what is better, so they mainly lived.

Of course this way of thinking led the Stoics into a host of inconsistencies and paradoxes. But it seems to me a low, silly criticism which flouts at them on this account. As we shall see hereafter, we are to-day living in an ethical atmosphere very much like that of imperial Rome. Take then one of our typical American millionaires, vulgar, sordid and pietistic. Compare him with Seneca, a millionaire too, but also a man of marvellous genius—a man that lived serenely, not like Diogenes in a tub, but in a den of wild beasts—a man whose winged words after nineteen centuries are still flying around the world.[13]

Among the nobler Stoics too I find some gleam

of that primeval faith in the Infinite, self-sacrificing Cause which is the only true basis of morality. The essence of God is "goodness," said Epictetus, for example, "He has given us all good that could be given—*a part of Himself*." [14]

But such archaic, sacrificial conceptions had no influence. They seemed to the Greeks and Romans in general, as they do to most moderns—to be mere paradoxes and "hollow declamation." And necessarily so. For, the classic indifference to causality and engrossment with sensible results led logically to a utilitarian ethics. And when the thin artistic drapery woven by poetic philosophers had fallen away, classic morality stood forth as simple egoism, disrobed but unashamed.

NOTES

[1] *Odyssey,* XXIII. 210-12.
[2] Butcher, *Some Aspects of the Greek Genius,* 105 *seq*
[4] Harrison (*Prolegomena, Greek Religion,* 478) claims for Orphism more than ceremonial purification; but in the whole book I can find no proof thereof.
[5] *Ibid,* 517-8.
[6] Jones, *Greek Morality,* 23.
[7] Nettleship, *Republic of Plato,* 87.
[8] Brouwer, *Hist. de la Civilisation des Grecs,* II. 246-7.
[9] Jones, *Greek Morality,* 120-1.
[10] Curtius, *History of Greece,* IV. 72.
[11] Wundt, *Ethics,* II. 26 and 28. "The good for them is the useful."
[12] Sidgwick, *Enc. Brit.,* VIII. 585.
[12 *a*] Ritter, *Hist. Ancient Philosophy,* IV. 179 *seq.* and 199 *seq.*
[13] Dill (*Roman Society, from Nero to Marcus Aurelius,* 295) defends Seneca well, but with too much stress on his declaiming power. Seneca had deeper merit than that.
[14] *Diss,* I. 14.

CHAPTER III

GREEK SCIENCE

I. *The Classical Period*

Theory of Scientific Development. In our survey of Indian science, we outlined our theory that success in physical research depended upon two conditions; first, search for unchanging causal processes; second, rigid verifying of these processes through observation of their results. We explained India's great triumph in founding the mathematical sciences as due to the fact that mathematical processes being abstract have no need of external verification. But she made no great progress in physical science because while eager to discover the secret processes of Nature, she neglected to verify her supposed discoveries by exact observation of results.

Greece, I now wish to show, also failed but for exactly the opposite reason. The Greek was critical, insisted strenuously upon proof, was an exact observer of sensible things. But on the other hand, his sense of causality was feeble and defective; therefore *he never recognised the strict invariability of causal processes.* He saw only a considerable de-

gree of uniformity mixed with a great deal of irregularity and fortuitousness.

Now the first of these two assertions, the critical, verifying spirit of the Greek, is a mere commonplace. But the second I must prove carefully; for it does not chime with the loose talk of our modern historians of Greek thought and speculation.

Aristotle. And for this proof let us go to Aristotle, both because he was confessedly the creator and chief master of Greek logic and because he pursued practical physical research with more success than any other thinker of the classic period. Aristotle was an indefatigable and exact observer, always loyal to his principle that we "must collect the facts and provide as large a number of them as possible." He was likewise preternaturally quick in the discernment of differences, the prince of analysts. Furthermore, the founders of modern science generally labored in poverty and amidst a hostile environment; but Aristotle, as the tutor and friend of Alexander, brought the resources of a mighty empire to the aid of his studies.

And he did good work in the classifying of species belonging to the organic realm. But remember what has been already pointed out in our introductory chaper, that in the study of organic species the processes of production are visibly presented before the observer. Process and product are both equally well known, and the one serves as the test of the other. But in order to pass from species to genera, etc., there was required a deeper and fuller

knowledge of the processes of production which the ancient observer did not possess. And, therefore, Aristotle advances not a step; he has hardly a glimpse of anything like a systematic classification of plants and animals into genera and still higher divisions.

But in the inorganic realm the processes of production are entirely hidden from mere observation; they are mysteries which even now science is just beginning to unveil. And here Aristotle like the Greeks in general went hopelessly astray. Everything was explained by the empty phrase "occult quality"; the stone fell because it had within it an occult quality of heaviness, the smoke rose because it had the quality of "levity." But plainly these are but identical propositions, they explain nothing. More than that, they fatally mislead; they conceal and virtually deny the real unity of the process, from which both the fall of the stone and the rise of the smoke result. Some historians of science—Whewell, for example—have ascribed these puerilities on the part of Aristotle and other Greek inquirers to their overlooking the ambiguity of words. But the Greeks were wonderfully quick to detect ambiguous speech whenever they desired to do so. The real reason lies much deeper than that; it lies, as I shall now try to show, in a radical, incurable defect in the Greek theory of induction.

Aristotlean Induction. The logic of Aristotle and the Greeks knew of induction only as a mere enum-

eration of particulars.[2] Many critics have doubted this and have tried to distort the plain, unmistakeable language of the Analytics into some conformity with the stricter views of modern science.[3] But they might have spared all their subtleties and special pleading, if they had recognised that the Greek view of nature absolutely precluded all but this vulgar view of induction. To that view the processes of Nature were not invariable but on the contrary a wild mixture of uniformity and irregularity. They even imagined that this mixture was exhibited in different degrees in different localities. In the heavens, Aristotle claimed, all was orderly and uniform except in a few cases like that of the "wandering" of the planets. But on earth events were largely fortuitous and the course of Nature very irregular and capricious.[4] To him the natural is always that which happens, "generally, or for the most part." From such a point of view his theory of induction is philosophic and valid; the enumeration of particulars within even a narrow range of observation gave at least as much uniformity as actually existed in Nature. And with this the world's most consummate logician was naturally content.[5]

That then is the reason why Aristotle, the lawgiver of ancient logic, never rose above the vulgar, unscientific view of induction. He did not believe that the processes of nature were invariable. He says that nature—like the artist—often fails to achieve her aims.[6] She makes mistakes, monstrous

and abortive forms. Plants are imperfect creatures[7]: so are some species of animals, the moles for instance.[8] Everywhere beneath the moon chance and accident play a very prominent and possibly the chief part.

Universals. Aristotle's famous doctrine of universals or general ideas can only be explained satisfactorily in the same way. He denies Plato's doctrine of the "Ideas" as existing *apart* from things but insists that they exist *in* things. But here both these imperial thinkers have gone astray. The universal, the "Idea," the concept, in its true or intensive meaning is but a symbol for the invariable process of production. To use our old example the fall of a stone is the product of an unchanging causal process in which a countless host of factors enter. The product may vary as different factors enter into the process; but the process itself never changes, always conforms to one mathematical formula. The universal, then—the "heaviness" of the stone, for instance—is neither in nor outside the thing. Both Aristotle and Plato err in ignoring the causal process and substituting for it some mystic entity or thing spatially related to other things. And over their rival but connate errors, hundreds of philosophers are still disputing.

Induction and Greek Idealism. Plato, however, placed more stress than Aristotle did upon the element of invariability in concepts. He had learned much from the Pythagoreans who in their turn had imbibed something of India's faith in the rigid causal

connexion and mathematical relations of things. Thus the idealistic thinkers of classic Greece had gained at least an inkling of the true scientific method. The Platonic conviction concerning the mathematical laws of nature, as Whewell rightly says,[9] "has continued through all ages to be the animating and supporting principle of scientific investigation." Similarly Bacon declares[10] that "the Pythagorean doctrine of numbers goes deep into the elementary principles of nature." Guided by this Oriental emphasis upon invariable or mathematical processes of causation, the Pythagoreans gained, at least, an approximately true conception of the astronomic universe; they also founded the first medical school in Europe and started the study of botany: and "in the study of acoustics they made the only genuine advance gained in any department of physics before the Alexandrian era.[11]

But these idealizing theorists stood aloof from the dominant thought of Greece and their influence upon it was neither strong nor lasting. Furthermore, they themselves had but a dim insight into these alien Indian speculations. The Pythagorean doctrine of numbers is so mystical as to be almost unintelligible. Of what account were "the mathematical laws of nature" to a people like the Greeks who with their imperfect system of notation had to work out all difficult arithmetical problems geometrically?[12] Finally, Plato like Aristotle limits the invariability of natural processes to the heavens, deems any certain knowl-

edge of earthly phenomena to be impossible and regards the study of them as at best but "a harmless pastime." [13]

II. *The Alexandrian Period*

We have seen that the development of physical science is made possible only by a certain balance between the two contrasted but still complementary impulses of the human spirit. On the one side there must be an emphasis upon causality like that for example which led all India to believe that the characteristics and the vicissitudes of each individual life were the product of an unchanging process of causation that led back to the very beginning of time. On the other side there must be that critical tendency to observation of results and demand for proof which the Greeks had in plenty. By this law we have explained why India triumphed in mathematics where verifying was not needed. And why Greece at the climax of her genius and culture achieved nothing in science—except, perhaps, some dim and fruitless forecasts.

But at last, long after the decadence of Greece had begun the two complementary impulses seemed for a brief period to meet in equilibrium. Alexandria standing at the very gateway of the East was the natural focus of the Oriental influences that came streaming upon the West: and thus in her schools the two tendencies of the human spirit commingled. Hence the indispensable condition was fulfilled for that scientific progress which has given such lustre

to Alexandria. There men of science appeared for the first time as a class distinct from the philosophers; there the investigation of nature began to assume something of its modern form.

It is impossible to speak here of the great names belonging to that age or of their discoveries. Suffice it that they seem all to have been deeply imbued with the Platonic or Oriental conceptions and yet masters in the Greek method of exact analysis and patient observation. Even Lange concedes that there was something more than a casual connexion between idealism and science at Alexandria.[14]

But this scientific movement soon reached its impassable limits. The classical spirit was everywhere in a state of decrepitude and especially so in a city like Alexandria set in an Oriental environment. As the Greek impulse waned, the Oriental grew stronger and wilder. At Alexandria men of science gave way to Neo-Pythagorean and Neo-Platonic mystics who despised everything physical, substituted ecstasy for observation and valued nothing except delirious dreams concerning the Infinite and its emanations. Even Plotinus, the least irrational of them all, maintained that true science required no verification from without and no demonstration.[15]

Rome and Science. Among the Romans of this period antipathy to science seems to have been an instinct. The loftiest minds were without any desire of knowledge for its own sake or any hope of attaining it.[16] Cicero regards even geometry as doubtful and questions the value of anatomy.[17]

Seneca maintains, almost as an axiom, that physics can reach to nothing beyond the merely probable.[18] Marcus Aurelius formally censures all researches into natural objects since thus man forgets to be alone with himself and to be devoted to his inner demon.[19]

In fine, the brief almost meteoric career of classical science had closed and that of Egyptian theosophy began. "Egypt which in classic times had been held as the stronghold of bestial superstition was now spoken of as a "Holy Land," and "the temple of the universe."[20]

NOTES

[1] Whewell, *Hist. Inductive Sciences,* I. 88-92, after much wandering finally stumbles upon my doctrine. Aristotle failed, he says, "because he did not refer the facts to their appropriate Idea, namely Force, the *Cause* of motion" (p. 90).
[2] *Analyt. Poet,* I. 32, 5. *Analyt. Prior,* II. 25.
[3] Sigwart, *Logic.*
[4] *De Coelo,* II. 5, 1.
[5] The Arabian commentators interpreted the Aristotlean Induction as being a mere enumeration of particulars. Consult on this, Asch Schahrstani, *Religions-partheien,* II. 226.
[6] *Phys,* II. 8.
[7] *de Plant,* I. 1.
[8] *Hist. An.,* N. 8.
[9] Whewell, *Hist. Inductive Sciences.*
[10] Bacon, *Works,* I. 467.
[11] Matter, *Hist. de l'Ecole d'Alexandrie,* II. 127.
[12] Ritchie, *Plato,* 49.
[13] *Timaeus,* 59, C.
[14] Lange, *History of Materialism,* I. 124.
[15] Ennead.
[16] Dill, *Roman Society from Nero to M. Aurelius,* 396.
[17] *Acad,* II. 36:39.
[18] *Ep.,* 65.
[19] Ritter, *Hist. Anc. Philosophy,* IV. 222.
[20] Cruttwell, *Hist. Roman Literature,* 478.

CHAPTER IV

CLASSICAL ART

I. *The Love of Nature*

The reader is already familiarized with our theory of Art as the *dim* revelation of the unseen and causal through its sensible results. The development of Art then, like that of Science demands a certain equilibrium between the two impulses of the human spirit; but it differs in this. The Greeks, we saw, attained only a slight success in science because their sense of causality was so defective that they never recognised the invariability of natural processes: and without that recognition any great scientific advance is impossible. But that rule does not apply to art, since the latter seeks not for precise and verifiable formulas but for the dim manifestation to feeling of what cannot be precisely formulated in thought. Thus it happened that while Greece made no great scientific advance, her art is the world's wonder.

The Genesis of Greek Art. This theory of the two blended impulses—the Oriental and the Occidental—is verified even by the geography of classical art. For, the Greeks of all Western people were in closest contact with the Orient. More than that,

their art began in the isles between the European and Asiatic coasts, and above all, in those splendid but ill-fated cities which the Greeks founded in Asia Minor. In these places, half Greek and half Oriental the two world impulses met and mingled: and there classical art commenced its career of glory. Thence across the Aegean isles as a bridge it passed over to Athens and the mainland.

But geography alone would not give a sufficient explanation. For, the two impulses would be in a very unstable equilibrium; the native impulse would persist and grow, the alien one would tend to fade away. The Greek impulse, engrossed with visible results, utilitarian, skeptical, tended to sordidness: and so it needed the uplift of great events to bring about that exaltation of spirit wherein noble emotions unknown at other times, suddenly flower forth. Two such periods of exaltation Greece seems to have had. The first rose from the Greek conquests in Asia in Homeric times; after that there was a declension. Then came the victory, over the Persians —an almost incalculable event—bringing with it such an access of moral as well as martial enthusiasm as perhaps no other people has ever known. And after that another slow declension from which there was no recovery.

The Love of Nature. The chief characteristic and crowning excellence of India's art we have seen to be its wide, deep sympathy with nature. But this the classical Greek entirely lacked. He had poetic sympathy only for man, and most often only for the

Greek man. That all living things were the products of virtually one vital process, that "a mystic harmony" bound man, beast and insect together was to him not only an idle but a repulsive dream. Engrossed with results he valued external nature only for its uses. "So far as I can recollect," says Ruskin, "every Homeric landscape intended to be beautiful is composed of a fountain, a meadow and a shady grove. Or, as Schiller declares, the Greeks reproduce the details of nature with care but we see that they take no interest or heart in them; their impatient imagination only traverses them to pass beyond to the drama of human life. And a more recent critic notes as characteristic of Greek literature that where the scenery is of that wild and picturesque character which most delights the true lover of nature, the splendid natural features of the place are never mentioned." [1]

Alexandrian Nature Love. The same critic in another work notes it as a curious fact that from a city-life in the midst of great sand-hills bare of vegetation should spring the only poetry in all Greek literature which makes the delights of rural life its theme.[2] But the mystery vanishes when we remember that this city was the one where Oriental influences centralised. Furthermore, the poetry referred to belongs to that period when the two world impulses, as we saw in the last chapter, were so harmonized that physical science also flourished at Alexandria. Thus closely do the facts of history dove-tail together to prove our theory.

Still the Alexandrian sentiment is rather pallid. It seems to be of a descriptive, scientific cast without that poetic fervor which characterizes the nature-love of India; or, as has been well said,[3] it is only description not interpretation.

Roman Sentiment. The Roman interest in nature is like the Alexandrian—artificial and quasi-scientific. It is the utilitarian element, "the comfort, ease—in a word, the *body* not the *spirit* of nature that the Roman poets celebrate." Alpine scenery suggested no associations but those of horror and desolation. And even the fondness for woods, rills and flowers springs more from weariness of city-life than from any craving to be alone with nature—the speechless interpreter of the unchanging eternal Cause of all.

Landscape Painting. A modern critic has called Virgil a landscape painter; but one smiles at that when he remembers that real landscape painting was an unknown art in either Greece or Rome. The few attempts in that direction "never rose above a birds-eye view or an insipid scenography."[4]

From all directions then the historic proofs converge to verify my thesis. The true love of nature is the very climax of the Oriental emphasis upon causality as invariable and infinite: it was so far removed from the view of the Greeks and Romans—engrossed with ever changing results, averse to the infinite—that they could not grasp it even as a dim revelation of poetic art.

II. *Sculpture and Architecture*

Greek Sculpture. Art, we repeat, is the dim revelation of the unseen and causal in its external results. But the most exalted conception of this causality which the Greeks could securely grasp was embodied not in external nature but in the human form. There they found the truest disclosure of what was at least divine, if not infinite. And they saw that the highest human beauty consisted not in mere regularity of feature or outward conformity to type but in the *expression,* the mirroring of the inner life upon face and form. Then they strove to represent outwardly this ideal of beauty. It seems almost a miracle of creative genius that a block of white stone, lifeless, without motion or light in the eyes or color upon the cheeks, should be made to reveal ever so dimly the mysteries of the human spirit. But this the Greek masters did with such skill and power that ever since—except for one brief period—sculpture has seemed almost a lost art.

Thus through its masterpieces of sculpture, Greece gave to the world the first and greatest of all lessons in artistic method. She exhibited in flawless examples the infinite capabilities of *form* as a revealer of beauty. Future ages were to teach two other lessons showing the full capabilities of light and sound. But the Greek lesson was the first not only in the order of time but of importance; for, the beauties of color and even of sound are

superinduced upon those of form and cannot exist without them. This is the reason why after thousands of years the Greek age still remains supreme in the realm of art. Every other age returns to it as the pupil to his master.

Greek Architecture. The sculpture and the architecture of Greece are twin sisters. But there is a peculiarity about the latter which wonderfully verifies our theory of art. It will be remembered that in treating of beauty of form in the first book we gave Hogarth's rule interdicting the circle as an æsthetic curve and we explained his rule by the fact that the circle is an obvious and obtrusive instead of a *dim* manifestation of causal order. Now the philosophic writers of Greece were not acquainted with this rule; Aristotle holds it as an axiom that the circle is the ideal of perfection, and as we shall see hereafter, his teaching upon this point, being handed down through the centuries delayed Kepler for many years in his discoveries and so retarded the dawn of modern science. Plato, too, had the same exalted opinion concerning the circle; he even argued that man was the most perfect animal because his head was a sphere![5] But somehow the architects who built the noblest Greek temples *felt* differently. There are no circles in their architectural lines; but instead thereof there is a minute elliptical curvature in what seem at first perfectly straight lines; the vertical lines all curve imperceptibly towards a common but distant centre; the horizontal ones have an equally subtle convexity. So imper-

ceptible are these faint curvatures that art critics did not discover them at all until a few years ago; but they are now recognised as the secret of that subtle grace and delicacy which lifted the Parthenon even in its ruins above all other human structures.

But Greek architecture did not stay long at this zenith where ineffable beauty sprang out of simplicity and repose as from some power unseen. Creative genius gave way to *inventiveness*, mechanical devices, straining after novelty and over-loaded ornament.[6] But of this decay we can here note only the end as revealed at Rome.

Roman Architecture. As practical builders the Romans were unrivalled. They performed amazing feats of engineering skill; they built imposing edifices, profusely decorated, instinct with all the pomp and pride of Roman character. But the supreme principle is always a straining after grandiose *effects*, immensity, costliness, mechanical ingenuity. Everything is on exhibition. Rarely is there a touch that appeals to the imagination, lifts emotion upward, suggests the calm, the reserve, the unity of creative power.

Take for example that most characteristic feature of their architecture, the arch, which the Romans borrowed through the Etruscans from the East. They employed it skillfully in their grand engineering and building projects; but they were always blind to its æsthetic possibilities; those they left to be developed in distant ages amidst the wilds of Northern Europe. Recall again what has just been

said concerning beauty of form; then contrast the heaviness and monotony of the *semi-circular* Roman arch with the aerial lightness and grace of the pointed gothic style. Do we not have here another conclusive proof that the essence of art is *dimness* of revelation?

Again, this revelation is always a revelation of unity—that is, of the only true unity of dependence or causality. But the Roman decoration of the arch sins against this principle of unity also. They still adhered to the Greek style of decoration by columns, which, after the adoption of the arch, had lost all its structural significance and consequent beauty. The Coliseum and other like buildings would have been much more noble and dignified without the unmeaning half-columns and capitals which are stuck upon their sides; for these subserve no structural purpose and hence have no real unity with the rows of arches. No small part of the majesty of the Coliseum as a ruin is due to the fact that the bare arches of the interior are now, by the destruction of so large a part of the exterior shell, left exposed in their natural strength and simplicity.

NOTES

[1] Mahaffy, *Silver Age*, 372.
[2] *The Progress of Hellenism*, 69.
[3] Poinsett, *Comparative Literature*, 260. Laprade also notes the vastness and profundity of the Indian sentiment for nature and contrasts it with the Greek, *La Sentiment d. l. Nature chez les Modernes*, 216.
[4] Brunn, *Gesch. d. Griechischen Künstler*, II. 308.
[5] Ritchie, *Plato*, 127.
[6] Brunn, *Gesch. d. G. Künstler*, I. 217.

CHAPTER V

THE IDEALISTIC PROTEST

Buddhism, as we have seen, was mainly a social revolt, the rising of the warrior caste against the Brahmans; despite some superficial differences, it really made no very radical departure from the general tenor of thought in India. But the Greek protest was an intellectual movement that seemed bent upon reversing the whole current of classical thought. Already I have noted that our modern view of classical antiquity has become a chaos of inconsistencies and obscurity through the failure of historians to discriminate between the dominant tendency and the protest.[1] It remains now to show the entire incapacity of the protest to effect any real reformation.

The Orphic Mysteries. Some faint traces of the counter-movement may perhaps be found in the Homeric poems;[2] they are abundant in the later poetry.[3] But it was the dominant note in the Orphic mysteries. The Orphic literature, says Pausanias, has less artistic merit than the Homeric, but it is imbued with a deeper sense of sacred things. It had borrowed much from Egypt and the East. For the personified abstractions of classical mythology

it substituted a true Oriental pantheism; human souls were emanations from the soul of the world;[4] the present life was a punishment for the sins of a previous existence, the body, a grave or prison: all men were subject to the law of transmigration.[5] With this a strong ascetic tendency and a rigid sacerdotalism were combined. So far the secret rites of Orpheus veiled a thorough Orientalism of the ordinary type.

The Self-sacrificing God. But there is one element in this Orphism of peculiar interest for the philosophy of history. We have already noted that in Vedic religion there are obscure intimations of the Infinite as having created the universe by an act of self-sacrifice and that this view slowly faded and gave way to the conception of the empty Absolute. Now, this doctrine of the self-sacrificing God is imbedded in Orphism most hideously corrupted indeed, but still firmly held as the most profound and sacred of mysteries. The climax of the mystic Dionysus worship is that the "Wild-Beast God" is torn in pieces *by himself,* and his worshippers purified by his blood. Modern critics are apt to be so shocked by the exterior horribleness of the myth that they see not the pearl within—its spiritual meaning. But I think that Euripides saw it, when an old man in a strange land he wrote the grandest of his dramas, the Bacchæ.[6]

The Pythagoreans. We have already shown the indebtedness of Pythagoras to India, not only for his theology and ethics, but also for his supposed

scientific discoveries. So it is here needful only to note that he was not content with a purely intellectual or educational form of faith but attempted an actual reconstruction of society; the classical principles of freedom, democracy and individualism were to be suppressed and a new social order arise marked by absolutism, the supremacy of a speculative class unquestioning faith and a more than Oriental restriction upon rights of property. How signally he failed in this bold attempt to reverse the whole classical movement need hardly be mentioned.

Plato. We come now to one with whom the protest against the Occidental impulse reached its climax of intensity and power. In metaphysics, Plato's name for over two thousand years has been a synonym for the idealism of the East. In ethics he came as near as it was possible for a Greek to come to accepting the ascetic ideal and throwing off the bonds of classic utilitarianism.[7] In art also he reverts to Oriental principles, condemns Homer and interdicts the Greek drama in his ideal commonwealth.[8] In political science he fought against almost everything that public sentiment regarded as highest and best; he had an Oriental antipathy to freedom; he admired Egypt because there the priests were the sole depositaries of knowledge,[9] and because no innovations in art had been permitted there for ten thousand years; heresy he counted as a crime meriting not merely one or two but many deaths.[10] All individualism was to be ruthlessly sacrified to the demand for civic unity; individual rights of

property were to be replaced by a communism so sweeping as to include even wives and children.[11] Even the commercialism so instinctive in the typical Greek, he condemned as base and contemptible. Above all, Plato accepted and glorified again and again that doctrine of metempsychosis which Greece and Rome derided but which India made the very cornerstone of all her thinking.

It goes without saying that Plato's reformatory efforts led to nothing. But what I wish to particularly point out is that Plato himself was not really emancipated from the dominant impulse in Greek thought and life; he was not fully convinced by his own eloquence. His dialogues when carefully compared reveal a spirit at war with itself. Hence that famous "inconsistency of Plato" of which Cicero complained—that vacillation of belief which has so puzzled the German critics. It is the inconsistency of one who in spite of all his protests is swept away on the mighty tide of prevailing opinion.

The Platonic Ideas. Remember now that Plato wavers not merely about matters of detail or of secondary importance, but about the very groundwork of his system—the theory of ideas. At present almost all critics agree that there is a marked difference between the theory in the earlier and that in the later Dialogues; but they are entirely unable to agree as to what the new theory is. One recent critic enumerates six different views that have been advanced and then adds another of his own which to my mind is the most preposterous of all the

seven.[12] Now add to this that Plato himself nowhere formally unfolds his new doctrine; and that he nowhere attempts to answer the objections which in the Parmenides he himself had raised against the theory of ideas. Add further that Plato's first two successors, as head of his school, both virtually abandon the doctrine of ideas. To the Indian thinkers, idealism was as an axiom; to Plato and his pupils it was but a conjecture, alluring indeed, but beset by hopeless difficulties.

There is the same wavering in the Platonic ethics; the spirit of the Protagoras is in marked contrast with that of the Gorgias; and nowhere has Plato given a definite statement of his ethical theory. His political theories also—both the higher ideal of the Republic and the "second best" one of the Laws—he virtually admits to be impracticable.

Naturally what did not more than half convince Plato himself, did not convince the Greek world. Athenæus [13] devotes many pages to a setting forth of what he calls "the malignity of Plato." That doubtless expresses the sentiment of the average Greek to whom Plato was an idle dreamer, an ill-natured censor of almost everything that Greece admired and loved.

Hence that gloom which is said to have overshadowed the later years of Plato.[14] His protest had been in vain. His philosophy took no firm root in Greek life; it throve only when centuries afterward it was transplanted to Alexandria where Oriental influences were supreme.

Greek civilisation was a one-sided development, powerless to reform or check its own exaggerations Only through that truth, can any one fully understand Plato and Greek thought.

NOTES

[1] *Book* II, *Chap.* I, *Sec.* I.
[2] Muller, *Lit. Anc. Greece,* I. 18. Nägelsbach, *Hom. Theologie,* 414.
[3] Nägelsbach, *Nachhomerische Theologie,* I. 449, 452, etc.
[4] Lobeck, *Aglaophamus,* I. 756. Itaque quod Pythagorei docent animos ex mundi anima haustos et delibatos esse idem in Orphei carmine *Physica* inscripto enunciatum est.
[5] Gerhard, *Orpheus u. d. Orphiker,* 18. Nägelsbach, etc.
[6] Murray, *Euripides,* 168. *Note.* The ablest and most thoughtful of recent criticisms. But the author yields too much to modern cant and narrowness when he speaks of the Orphic doctrine as "a confusion of thought," "incredibly primitive and uncanny," transcending reason, etc.
[7] Michelis, *Die Philosophie Platon's,* II. 319. Grote (*Plato,* II. 165. *Note*) notes the similarity between the ethics of Plato and of the Hindu Sankhya.
[8] *Leges,* III. 701; VII. 799.
[9] *Ibid,* II, 656.
[10] *Ibid,* X. 909 *seq.*
[11] Mahaffy (*Hist. Greek Lit.,* II) rather mistily denies this communism.
[12] Ritchie, *Plato.*
[13] *Athenaeus,* II. 105-120.
[14] Mahaffy, *Hist. Greek Lit.,* II. 107.

CHAPTER VI

SOCIAL EVOLUTION IN GREECE AND ROME

I. *External or Political Structure*

The City. In the political structure of classic society the unit, as every one knows, is the city. Greek and Roman politics were thus in polar contrast with those of India which, as we have seen, were feudal and rural. In India, relatively to the immense population, there were very few cities, and these were merely the courts of kings. These royal cities were in fact but villages of more than usual size: their walls were fences or hedges, or at best, of wood;[1] within were scattered houses, gardens, lakes, fields and forests.[2] But classic civilisation lacked that emphasis upon causality retrospective, revering the past, which made the Indian cling to the ancient village life—made him also a rapt lover of nature and rural things—made him restrict individual rights of property to such land *as the individual tilled.* Lacking all such traits, the utilitarian Greek or Roman took to the city as naturally as a fish to water; its strong walls protected him; its crowds fed his love of novelty and excitement; his wits were sharpened by much social friction.

Modern critics have neglected this evident contrast. But the old Romans, those astute politicians, were fully conscious of this fundamental difference between Eastern and Western civilisation. In their efforts to reorganise Asia Minor according to their own interests, their chief and constant care was to found new cities, to centralise the scattered population, in every possible way to promote urban at the expense of rural life.[3]

The Ruin of Rural Greece. But this upbuilding of the cities meant ruin for the country. Even so far back as the days of Solon, the rural population of Attica had sunk to surprising depths of beggary and woe. The land-owners had betaken themselves to the city to live in ease and idleness; the lands were cultivated either by slaves or else by tenants who received for their share *one-sixth* of the crop.[4] It was an extortion never paralleled, I think, outside the Greek and Roman world. Among the wild peoples of Sumatra even the slave is permitted to keep one-half of what he produces.[5] Here in America the tenant on the rich garden-lands of the West retains two-thirds of the crop as his share, and still finds existence rather discouraging. But the Greek tenants could escape starvation only by running in debt, and being unable to pay were sold as slaves into Egypt or other foreign lands.

Of course efforts were made to check such hideous iniquity; but they seem to have availed little except to delay the inevitable, and so prolong the misery of the wretched rustics. Strabo speaks of many

parts of Greece as deserted except here and there a decaying hamlet. All other authorities, Pliny, Polybius, concur.

The Roman World. Under Roman rule there is the same picture of rural devastation with the dark colors deepened. Cato tells us that on good land in some parts of Italy the tenant received only one-eighth, and in some cases only one-ninth of the produce for his share. Prices too fell to ruinous rates, because the government collected grain as tribute in distant parts and either gave it away or sold it for a song to the populace. Thus free cultivation became impossible. In Etruria, for example, from town to town, stretched one unbroken series of great domains whereon no free laborer was to be seen.[6] Cities multiplied; in Spain seventy-one new cities arose in a single century.[7] But the country was laid waste.

Forms of Government. The Greek genius, as we have seen, was engrossed with the conception of *form*, made it the supreme consideration not only in art but in philosophy, religion and above all, in politics. Plato, Aristotle and all the rest were never tired of discussing the different forms of government. Now political forms are doubtless important but only secondarily so. The best political forms in the hands of a people incapable of using them aright are no better than a Damascus blade in the hands of a madman. For this reason I leave the discussion of the Greek and Roman forms of government to the antiquarians.

II. *Commerce*

From the outer forms we pass now to the inner life of society—the industrial movement. And here we find that the same simple law which threw such a flood of light upon the social life of India, illumines equally well that of Greece and Rome. Wealth is the product or result of labor. India emphasizing causality exalted labor and despised wealth. Classical antiquity absorbed in results exalted wealth but despised and crushed labor. It is an almost mathematical antithesis; the same movement but in exactly opposite directions.

Rights of Property. The first proof of the classic tendency to exalt—to worship—wealth, lies in the extraordinary expansion and fierce assertion of rights of property which characterize Greek and pre-eminently Roman civilisation. India, as has been shown, saw that other causes co-operated with the individual owner in the production of wealth and so she restricted individual rights of property. Roman law ignored these other causes and expanded the individual right of ownership to the uttermost.

The Paternal Power. This tendency to expand rights of property was notably evinced in that enormous power which the Roman law gave the father over his family. The Romans themselves recognised this as something unique. The Institutes of Justinian declare that "the power which we have over our children is peculiar to Roman citizens and is found in no other nation." [8] But in Justinian's day

this power had been somewhat curtailed: in former times it had been absolutely unlimited. The father might sell his son into slavery [9] or kill him, and no one could interfere. Strangest of all, this power lasted so long as the father lived; the son might marry, have children, grow rich or famous, become a high official in the state and still remain virtually a slave; his property, his person and his children still remained under the despotic dominion of his father until the latter's death.

Nor was this enormous power a mere incident, a morbid growth of Roman law. It was simply one outgrowth of the universal tendency to exaggerate rights of control and ownership.

Roman Law. Few commonplaces are more familiar than that which celebrates the genius of Rome for law. But historians have failed to notice that this genius confined itself to developing a single department of law, and that the changes made were inspired by one fixed purpose of doubtful value. The criminal law, by far the most important branch in its bearing upon life and liberty, underwent no change; to the end it retained provisions so archaic and absurd that they almost seem to have been devised to convict the innocent and clear the guilty. But the innovations in civil law were many, and they all tend to enlarge the rights of the individual owner. In fine, the genius of the Romans for law devoted itself to investing individual rights of property with an ever increasing sacredness.

Landed Property. India remembered that values,

especially in land, were of collective rather than individual origin; hence social or communal rights to the land were always held as paramount and sacred. In Israel, although commercialism had been there considerably developed, lands could be alienated only for a term of years. Indeed, Rome at first granted only very limited rights of property to the individual owner; according to some writers, originally no citizen owned an "inch of Roman soil; he could only possess and enjoy it by permission of the populus." It is at least certain that for ages there was no right of alienation except in rare cases; and even then the transfer could be effected only by a solemn ceremony, public and religious in its nature and burdened by minute formalities, the slightest neglect of which invalidated the entire transaction.

The "genius of the Romans for law" gradually removed these restrictions, absolved the individual right from all social claims, and finally invented the absolute title in fee simple.

Invention of Mortgages. A similar order of innovations were those that enlarged the power of pledging property. At first nothing could be pledged for debt except by actually passing into the possession of the creditor;[10] but Roman law invented the so-called *hypotheca*, not essentially different from the modern mortgage.[11] Also the class of objects that could be pledged was greatly extended so as include future crops or other expectations;[12] liberty was also granted to lay successive mortgages upon

the same piece of property. Thus the basis was laid for that expansion of credit which ultimately converted the Roman people into a nation of debtors and centralised virtually all wealth into the hands of a few creditors.

Wills. Still another enlargement of property rights was gained by the invention of wills. In Indian law, as we have seen, a true will was unknown. Even at Athens the laws of Solon invalidated any will which disinherited the direct male descendants of the testator. In Roman law also the testamentary power was at first very limited: a will was virtually a sale which once made was irrevocable. But the testament was finally made revocable and so became a true will taking effect only at the death of the testator. Thus the owner gained a grip upon his own which not even the hand of death could loosen.

Delinquent Debtors. The sacredness which Rome attached to property rights is curiously evinced by her treatment of the debtor class. Under the Roman law, the main business of the state—after its military and police business—seems to have been the collection of private debts; but India, on the contrary, had so little regard for acquisitiveness that the civil power did not interfere to enforce fulfillment of promises to pay. The Hindu creditor therefore was driven to strange expedients to obtain his dues: his last resort was to stand for days fasting or even to stab himself to death [18] at the door of his debtor in order to thus bring down the judgment

of heaven upon the delinquent. But Roman law completely reversed this mode of procedure; it empowered the creditor to sell the debtor into slavery. Or, if there were several creditors, they were authorized to cut up the debtor's body and divide the pieces between them.

This peculiar method of collecting debts never became obsolete so long as the Republic lasted. It is true that in the third century B.C. another form of civil procedure was devised; but the new form, we are told, "was not visibly different from the older except that it was far more favorable to the interests of the creditors and the money-lending classes." Not until the closing years of the Republic was it possible to levy an execution upon the goods of the debtor instead of selling him into slavery. And even this was optional with the creditor, "the debtor having no way of saving himself from the severity of the older procedure, if his adversary preferred it to *bonorum venditio*." [14]

Corporations. A feeble sense of causality tends always to personify abstractions. The Romans especially would deify any common noun—such as fortune, fever or theft—build a temple and offer sacrific in its honor. In the same way, Roman law personified wealth as a legal corporation. And this invisible monster, without either soul or body, yet living forever and wielding irresistible power, was the agent wherewith Rome plundered the world.

To these corporations the state relinquished many of its own proper functions. Great companies were

formed for collecting the taxes and executing the public works demanded in different parts of the empire; and the provincials soon learned that wherever such a corporation came their law vanished and liberty was at an end.[15] Still more sinister was the influence of the corporations upon the administration of justice at Rome. To this end pains were taken to distribute their shares as widely as possible. It was both illegal and disgraceful for senators to engage in trade; but they could and did become secret partners in these vast combinations for plundering the empire. Such of the common people also, as were not entirely pauperized, invested their small earnings in shares, and so there was a great multitude who could be relied upon to pack the legislative assemblies and to vote as the corporations dictated.

Reign of Commercialism. Honest trade, restricted to its proper functions, is as useful and meritorious as any other kind of labor. But Rome, by magnifying private rights at the expense of social claims, by investing wealth with abnormal powers had converted commerce into an enginery of evil and ruin;[16] Greece before her had taken not a few steps in the same direction. Even Homer, the standard of Greek religion and morality seems to make no distinction between commerce and piracy. And Athenæus bluntly ascribes the opulence of Greece to plunder; before the temple at Delphi was despoiled, he says, silver and especially gold were very rare, and only after Alexander had brought back the treasures of the East did wealth predominate far

and wide. In fact long before Alexander's day, the favorite dream of Athenian statesmanship had been the enrichment of Greece by the plundering of Asia.[17]

But what Athens had only dreamed of, Rome realized. She was the despoiler of all lands. To famine and flood and all other natural calamities the unhappy provincials were now taught to add—"the avarice of the Romans." [18]

Such was the outcome of that engrossment with results that characterized the Romans. Honest trade they counted as disgraceful because its gains were moderate. But commerce on the grand capitalistic scale, shameless usury,[19] monopolies that corrupted the courts of justice, extortions that robbed millions to enrich a few—these were the gods in the real Roman pantheon.

III. *Labor*

In the same degree that classical civilisation fostered the acquisitive impulse, the greed of wealth, it degraded labor the *cause* of wealth. The Greeks and Romans intent solely upon results saw in labor nothing but a means to the end; and of all means the most disagreeable, repulsive and ignoble. There were other means—military conquest, cunning and monopoly—far easier, swifter and more honorable.

The Degradation of Labor. Hence the laborer came to be, in Aristotle's phrase, "an animated tool." Plato thought that the artisan stood in the same degraded position relatively to the soldier that appetite stands to reason.[20] Aristotle, always eager to

contradict Plato whenever possible, agreed with him perfectly in his contempt for labor. No one, he said, practising a mechanical art could live the classical life of virtue, and therefore "the best regulated states would not permit an artisan to be a citizen." [21] The Romans, it need hardly be said, were of the same opinion. "All mechanical laborers," Cicero wrote, "are by their profession vile." [22]

Slavery. The Roman slave-system has been much obscured by the unconscious bias of modern writers. Here I shall strive to sketch briefly some cardinal, incontrovertible facts.

At first the system was very much like what it still is in savage lands: the small farmer in Italy worked by the side of his slave on almost equal terms. But the small farms were bought up, the farmers fled to Rome to be fed by the state and an era of capitalist production set in. On the great plantations slaves, branded like cattle and shackled together in chain-gangs, toiled by day. When night came they were locked up in subterranean prisons with only the roof and a small part of the wall above ground and the windows too high to be reached.[23] "A slave," the noble Cato used to say, "must either work or sleep."

In the city slavery was no less brutal. At the main entrance to palatial mansions the doorkeeper was chained up like a dog.[24] The master might kill his slave whenever he pleased: Augustus had one crucified for eating a quail.[25] Thus the Roman home became a nursery of whatever was vile; "every great

house was a miniature of the Empire under a Caligula or Nero."[26] For this reason Quintilian urges parents to send their boys away to school in order that their tender years may be kept from the daily contamination which the scenes of home-life afford.[27]

After Oriental influences had infiltrated into Roman life there are some traces of a less brutal sentiment concerning slaves, especially among the Stoic declaimers. But until the age of the Antonines, the harshness of the law of slavery was never mitigated and then only in a very slight degree.[28] And the general trend of imperial law in pagan times was quite different. It even checked the humane feeling which many masters felt when death drew near; at least there was a statute forbidding a testator from manumitting more than a small proportion—about one-fifth—of his slaves.[29] Claudius even issued an edict reducing "such freedmen as were ungrateful" to their patrons to their former condition of slavery.[30] Such facts show the real Roman sentiment concerning slavery much more than a few chance sentences culled from the Stoic declamations.

Considering then its enormous proportions and its brutality we must agree with Mommsen,[31] I think, that Roman slavery was more monstrous than any other form of servitude upon the globe.[31] How great the contrast with India where slavery was so mild and rare that a Greek ambassador living there for years denied its very existence.

Hostility to Industrial Organization. In another

way also, classical antiquity greatly degraded labor —by fiercely opposing all efforts for industrial unity.

The instinct for unity has always stirred in the working classes. At Rome, as everywhere else, workingmen delighted in little confraternities formed for mutual aid and good cheer; in the early ages we find them in the shape of the celebrated corporations of Numa, true guilds created and fostered by the state. But for some reason these appear to have degenerated from trade unions into mere political caucuses. Nevertheless the more that the humble toilers were oppressed and trampled under foot, the more they felt this divine hunger for unity, and so other fraternities or *collegia* arose. Slaves, needy veterans, artisans and other humble folk met in these gatherings upon a common footing: there was neither bond nor free. But already the Roman republic had gone far on the broad, glittering way that leadeth downward—the way of conquest and plunder. Already she had written deep in her laws that wealth was sacred and labor accursed. And so she began to pursue the brotherhoods of toil with a bitter hatred. Two centuries before the Christian era the *collegia* were put under stringent police and most odious restrictions. In the Augustan age they were entirely prohibited except associations confined to the celebrating of funeral rites: even these were not allowed to meet more than once a month and then only to attend to the obsequies of deceased members. All assemblies except for this purpose were criminal; to convoke one was high treason.

Note further that while Rome was so hostile to industrial union, she was more than friendly to the combinations of capital. Great trading companies rose upon every side; even agriculture was conducted upon the gigantic scale of the capitalist. Above all the Roman "genius for law" invented the idea of a corporation—a legal fiction devised to promote the united action of wealth and to facilitate schemes of monopoly. All this casts a fierce light upon the classical tendency. The Romans were individualists, but still they saw the benefit of unity and used it in those narrow spheres where it would promote their own purposes. But they looked with terror and hatred upon that wider unity ordained by the very nature of man—the brotherhood of toil. The effort to crush industrial organization, however, did not wholly succeed. The classical historians, for evident reasons, are silent concerning such matters, but we know from exhumed tablets and similar sources that these labor unions were to be found in all parts of the Empire. They generally maintained a sort of subterranean existence in secret places. They were especially numerous in the East; and as they there included almost the entire working class, it is more than probable that the Carpenter of Nazareth was enrolled among their members. Certainly there is much in His Gospel which can best be interpreted as the bold proclamation to the world of what had long been timidly whispered in these secret conventicles of labor.

Such then was classical civilisation. No essential element thereof has been here neglected, all have been directly traced back to their origin in a defective sense of causality. It is thus an incontrovertible induction, because it is based upon no hypothesis, but upon the most primary and indubitable of all facts—the nature of thought.

Furthermore it leads to something beyond an academic wrangle over archaic paradoxes and absurdities. It has an intensely practical interest. For modern civilisation is closely akin to the classical. It is dominated by the same impulse and afflicted with the same diseases. It too has lost faith in the self-sacrificing Infinite. It too is exploiting a morality which has no basis except in vague feeling and empty phrases. It too in its greed of gain has been cruelly unjust to labor. It too would be doomed, as Greece and Rome were, if it were not for the promise of a new regeneration.

NOTES

[1] Mahaffy, *Silver Age of Greek History*, 28.
[2] De la Valle, *Travels in India* (in Wheeler, *Hist. of India*, IV. 448.)
[3] Mommsen, *Hist. Rome*, IV. 179-182. Also *Provinces of Roman Empire*, I. 355.
[4] Wilson, *The State*, 67.
[5] Westermarck, *Origin and Development of Moral Ideas*, I. 677
[6] Greenridge, *Hist. Rome*, I. 179.
[7] Arnold, *Roman System of Provincial Administration.*
[8] *Institutes, Tit.* 9.
[9] In the Twelve Tables, however, it is said: "If a son shall be *thrice* sold by his father he shall be relieved from the patria potestas." That is after redeeming himself three times.
[10] Proprie pignus dicimus quod ad creditorem transit: hypothecam cum non transit, nec possessio ad creditorem: *Digest*, XIII. 7, 9, 2.

[11] *Institutiones,* Moyle, 320.

[12] *Digest,* XIII, 7, 37, 1.

[13] Maine. *Ancient Law.* Also Wheeler, *History of India,* II. 217. *Note.* Wheeler says that in British territory this mode of collecting debts has been made a punishable offense.

[14] *Justin, Institutiones,* I. 625.

[15] *Livy,* XIV. 18. Ubi publicanus esset, ibi aut jus publicum vanum aut libertatem sociis nullam esse.

[16] *Livy,* XXV. 3 and XLIII. 16. "It is an established opinion, the common talk not only at Rome but among foreign nations, that in the courts of law no rich man however guilty he may be can possibly be convicted," Cicero *ad Verr.,* I. 1.

[17] Mahaffy, *Greek Life and Thought.*

[18] Tacitus, *Hist.,* IV. 74.

[19] The noble Brutus was noted for his extortions, always demanding fifty per cent. One of his agents locked up and starved to death five municipal senators of a city indebted to Brutus. Arnold, *Roman System of Provincial Administration,* 83.

[20] *Republic,* IV. 441.

[21] *Politics,* VII. 8.

[22] *De Offic,* I. 42.

[23] Greenridge, *History, Rome,* I. 85.

[24] *Ibid,* 16.

[25] Lecky, *Hist. European Morals,* II. 321.

[26] Dill, *Roman Society from Nero to M. Aurelius,* 12.

[27] Crutwell, *Hist. Roman Literature,* 408.

[28] *Institutiones,* I. 8, 1 *et* 2. The phrase in this decree of Pius Antoninus—"*sine causa* servum-occiderit"—seems to me as much permissive as prohibitory of slave-killing.

[29] If the testator had even thousands of slaves only 100 could be manumitted. This law lasted until Justinian's time.

[30] Suetonius, *Claudius,* XIII. 26-27. See also Hobhouse, *Morals in Evolution,* I. 312.

[31] Mommsen, *Hist. Rome,* III. 87, also 103 and II. 165 *seq.* Also, Bucher, *Industrial Evolution,* 101: on Roman aristocracy and the slave-system. The reaction against Mommsen's indictment of Roman slavery, referred to by Dobschutz (*Christian Life in the Primitive Church,* 384. *Note*) seems to me very captious.

BOOK III

THE MIDDLE AGES

CHAPTER I

THE CATHOLIC RELIGION

I. *The Secret of Christianity*

The fatal defect of ancient civilisation both in the East and the West we have found to lie in the incapacity for reform. From the very nature of thought spring two tendencies, one emphasizing the cause or origin, the other the effect or result. India developed one of these impulses, classical antiquity the other. Each of them is therefore essentially one-sided and always tending to morbid exaggeration. In each there is a brilliant period of progress; in each a vague consciousness of defect, a dim protest against the prevailing impulse. But each proves powerless to check its excesses, to fully awaken the counter-impulse needed for the due balance of life—to bring about a genuine reform. And so both are under the doom of degeneration.

Regeneration. The law of Christian civilisation on the other hand is that of regeneration. The word regeneration or some cognate term—repentance, conversion, redemption, newness of life, etc.—meets

us everywhere in the New Testament. What we call "the Reformation" is but a stupendous and spectacular example of what is going on every day wherever there is Christian life. The demand for radical change, for reconciliation with God, for regeneration is surely the open secret of Christianity.

Of course this general view needs to be more strictly defined. But for that let the reader wait for our unfolding of the successive phases of Christian civilisation. If theology is ever to become a true science, instead of a mere jumble of sectarian disputes, the scientific or experimental method must be adopted; there must be some such inductive study of Christian experience evolving from age to age, as we are here attempting.

The Love of God. It may be well, however, at the outset to indicate the theological and ethical basis upon which the regenerative power of Christianity rests. As for the theologic basis no Christian will deny that that consists in the recognition of God's love. He is the Infinite Cause, who acts for the sake of others. We have seen already how Paganism lost this conviction; in Greece it was abandoned altogether; in India it dwindled into the barren idea of an abstract Infinite without love. But Christianity restored it in all its fullness.

Mark that Christianty *restored* what lay hidden and lost in the depths of all thinking. For all thinking is a relating of cause and effect; and as we have seen, there can be no full, uncontradictory

and complete conception of causality except as an infinite cause voluntarily sacrificing something of its infinitude for the sake of others.

Humility. Turning now to the ethical basis, we find in Christianity the recognition of a new virtue quite unknown to antiquity—that of humility. To classical self-esteem this virtue seemed a vice, a dastard trait fit only for slaves. Even the dejected Hindu had it not; he was depressed by his pessimistic view of life; and yet he imagined that by ascetic tortures or by queer speculations he could deliver himself from the cruel chain of Karma, from the woes and illusions of existence. But the Christian knows that he is weak and sinful, and yet that he can do all things when co-laboring with God, co-operating with infinite grace. Thus Christian faith and virtue spring from the same root and together they endow Christianity with its regenerative power.

Classical and Germanic Life. As we come now to study historically the regenerative action of Christianity we are at once met by a difficulty due to the very great differences between life in the eastern and in the western part of the Roman Empire. In the East the type of civilisation was Oriental, although not so fully developed as in India; in the West was that other type which we have found to be in polar contrast with the Asiatic. Evidently the regeneration needed in the one case would be different from that needed in the other. But to try to treat them both in our narrow limits would breed

complexity and confusion. Therefore our study must be confined to Western Europe with some incidental reference to Christianity in the East.

There is also another although minor difficulty. We must be on our guard against the vanity of many Teutonic writers who have ascribed almost everything excellent in modern life to some peculiar potency in the character of their savage ancestors. But it is all a patriotic delusion. The difference between Germanic and classic development was one of degree, not of kind. In religion there was a surprising correspondence, the same fundamental conception of the divinities,[1] the same slight esteem for sacrifice[2] and priests;[3] and as for immortality, the Germans ascribed that not even to their gods. In morals there was the same narrow, military code of duties. As for "the individualistic instinct of the Germans," [4] doubtless the passion for independence was less easily gratified in Rome or Athens than in the wilds of Germany; but in what forest was there to be found a more savage, self-asserting individualism than that of the Stoic sages who boasted of being equal and perhaps superior to God? In fine, the differences between the classical and the Germanic nature were superficial, the fruit of circumstances; the type of life was identical.

Against the classical impulse then—of which the Germanic was but a ruder form—Catholicism was to oppose the counter-impulse. For self-asserting individualism, it was to substitute the spirit of de-

pendence; instead of utilitarian engrossment with results, resignation; instead of the desire for change, the principle of unity and order. Thus the first great regeneration of European life was to be accomplished.

II. *Dependence upon the Infinite*

The doctrine of dependence upon the Infinite is of the essence of Christianity in all its forms. But what is distinctive of Catholicism is the intensity of emphasis upon this doctrine; it is made central and supreme, not to be qualified by other considerations that might seem essential to religion. A signal proof of this is furnished by the great Arian controversy.

Arianism. Under the later Roman Empire, the religious needs of the West were not those of the East. Life in Asia Minor and Egypt had been for many centuries saturated with the principle of dependence, resignation and submissiveness. To regenerate these lands there was needed an evangel of individualism, a prophet of liberty, the right of private judgment and personal responsibility.

Now, is is a well known fact but one of which historians have never seen the true significance, that in the great controversy between Athanasius and Arius the Oriental bishops mainly took the Arian or humanitarian side. They even accused the Western bishops, who were all Athanasians, of seeking to

introduce a new law whereby they of the West should become lords and judges over the East.[5] Thus Asiatic Christianity seems to have been instinctively conscious of its special need—the demand in the East for a faith that should as fully emphasize the human and finite as the divine and infinite factor in salvation. But the Asiatic bishops were overpowered by numbers and the glamour of external unity. From that time Asiatic Christianity began to lose its regenerative power. Divided and corrupt it slowly wasted away.

Mahometanism. Thus too the rise of Mahometanism is explained. Crudely and temporarily it did the work which Oriental Christianity had been prevented from doing. It imparted a new life very practical and boundlessly self-reliant in the place of the old Oriental life of dependence and apathy. The Mahometan abjured all priests and sacrifices. No mysteries, no sense of sin or need of forgiveness troubled him. Guided by the sacred book, any man by his own efforts—even by a little brave fighting on a battle-field—might win eternal bliss. In fact, this self-reliant Mahometanism has so many points of resemblance to recent Protestantism that many, like Max Müller, have thought that there was no vital difference between them.[6]

Furthermore the wreck of Oriental Christianity was the cause—not, as is commonly supposed, the result—of the marvellous Mahometan victories. Wherever the Arabian armies went they met a peo-

ple torn to pieces by bitter sectarian hatreds. In Egypt, for example, nine-tenths of the people were heretics or Copts; their chief leader said to the Arab invaders: "With the Greeks (the orthodox) I desire no communion either in this world or the next. We cheerfully submit." [7] And so after a holiday march down the Nile these beggars from the desert gained Egypt with its annual revenue of one hundred and fifty million pieces of gold.[8] Syria also fell into their hands through the apostasy and treachery of the Christians. It was the same even in Western Europe; for almost a century Spain had been seething with bloody conflicts between the Arians and the Orthodox;[9] then the Arabs came and marched gaily through the land. "It was not war," said one of them, "it was more like the Judgment Day."

I venture then to put this theory of mine against the current view of the Arabs as conquering because "the joys of paradise were before their eyes as they fought."[10] My own experience in war teaches me that soldiers on the battle-field are too busy to be thinking much about "black-eyed girls" in the spirit world.

Nor is this view of the wreck of Oriental Christianity a mere digression. It reveals by contrast the ennobling influence of Catholicism upon the barbarian conquerors of Western Europe. To the rude warriors of Clovis, fierce, passionate, hating restraint, this Catholic ideal of dependence, resignation, gentleness seemed something really divine—

light from another world. "For man needs in his religion the converse of himself, not himself again."[11] And so very slowly, by an education not completed for centuries, European barbarism awoke to the conception of the Infinite, and there is hardly anything of real value in our modern life that did not have its origin in that awakening.

III. *Sacrifice and the Priesthood*

The Catholic doctrine of sacrifice was an attempt to solve the great problem of man's co-operation with the Infinite in the work of salvation. Doubtless the solution was not altogether complete and satisfactory. Human wisdom is inadequate for such a task: for we are insufficiently acquainted even with ourselves, the finite factors; and concerning the Infinite, we are and must forever remain like Newton, little children picking up pebbles upon the shores of an illimitable ocean. But though all difficulties may not be removed they may be reduced to a minimum. And in this respect the Catholic doctrine was an incomparable advance upon all that had gone before.

Classical Sacrifice. In the first place, Catholicism extirpates the classical and savage view of sacrifice as a merely commercial transaction—an exchange of goods between God and man. Thus the gods were lowered to the level of man—except for the dubious pre-eminence of immortality. As Aristotle taught: "The gods are immortal men and men are

mortal gods." In fine, the idea of the Infinite was annihilated.

But Catholicism shunned this pit. It remembered indeed that man was made in the image of God; but it also remembered the vast difference between the image and the reality. And so it gave to man—to the individual worshipper—a minor and most inconspicuous part in the work of salvation through sacrifice. Possibly it minimized the human factor too much, but of this later. At any rate it kept firm hold of its faith in man's dependence upon the Infinite.

In the second place, Catholic sacrificialism escaped the error into which India fell. As we have seen, India lost the conception of the Infinite as self-sacrificing and substituted for it a merely negative conception—the absence of all limits. But the inevitable result thereof is the absorption of all things finite into the Infinite. That alone really exists; the world is but Maya or illusion; human souls are but shadowy reflections of the Infinite self cast upon some magic mirror.

This idealistic pantheism enchained India and in our Western life it is still one of the two great strongholds of unbelief. The conception of separate and free creatures we are told,[12] "militates against God's infinitude. Man and the world are separate from Him and in so far as they have independent existence must be held to limit him. He is no longer all that is." And yet how simple and incontrovertible the answer to this special pleading. It has

already been given but may well be repeated here as follows:

Self-imposed limitation of activity does not necessarily entail any limitation of power.

Catholicism saw that, and seeing it was saved from these pantheistic and illusionist vagaries which engulfed the religion of India. And thus it was enabled, through a thousand years of toil, to instill into European thought the conception of the true Infinite—not a mere negation, not Brahma in "dreamless sleep"—but the self-sacrificing Cause of all.[13]

The Priesthood. "The glory of the Sacrament," says Aquinas, "does not lie in the partaking thereof, but in the consecrating of the elements."[14] In that simple sentence we have the secret of the wondrous power and prestige of the mediæval priesthood. In Pagan times the priest had been little more than the janitor of a temple or a "medicine man," roaming through Germanic forests. But now he had risen prodigiously. Day by day he worked an ineffable miracle before the eyes of adoring multitudes; the civil law bound him not; to him belonged all the learning of the age and a great part of its more tangible treasures.

But the emoluments and honors were not beyond the services rendered. As another has said: "The presence of the Infinite, whether to an individual or a race, is brought at a great cost. * * * Through this *selva oscura* lay the path from ancient to modern

civilisation and few will be disposed to assert with Rousseau and Gibbon that the cost was greater than the gain." [15]

IV. *Faith in Immortality*

Here also a grand transformation was wrought in European thought and life. The doubt or at best the dim, waning hope of immortality which hovered over classical and Germanic life was replaced by a true Oriental assurance of faith. As in the East so now in the West existence after death was accepted as an axiom. Mark though that Catholicism, unlike Pythagoras and Plato, gave no credence to those wild dreams of metempsychosis in which India revelled. It discarded them just as it had discarded pantheism and illusionism; but the underlying conviction of immortality went undisturbed and unquestioned. As in India so in the Middle Ages even the boldest heresies did not cast off this ingrained assurance of immortality. The vision of eternity hung like another sky over all mediæval life. It made kings tremble. It turned the flames of martyrdom into a bed of roses. It was the theme of a Dante and the inspiration of a Michel Angelo. It was the sunshine and the storm under which all human powers developed.

Other Worldliness. But have I not here undermined my own theory? Does not this extreme engrossment with futurity shatter my conception of

mediævalism as retrospective rather than prospective, engrossed with causes and indifferent to results? Not in the least. On the contrary, it is a signal proof of the very highest inductive type; for, we shall turn this seeming exception into another instance of the universal law. And at the same time we shall break in pieces one of the most familiar and deadly weapons used by modern skepticism and worldliness.

For this mediæval faith in immortality was *made possible* only through faith in the Infinite Cause. It rose when that rose and fell when that fell; it was a reflection from the latter increasing not destroying or dwarfing its power. Therefore this mediæval vision of eternity was the direct opposite to mere engrossment with results; for, that degrades causality, disregards all causes except in so far as they may be used as means for the attaining of our desires.

But all this is hidden from those who talk glibly about "other worldliness" as being but another form of selfishness. It is unhappily true that human hopes of a future existence have often been supremely selfish; but such hopes inevitably fade like flowers cut from their stem. The only abiding faith in immortality is that rooted in humble, unselfish recognition of man's dependence upon the Infinite.

Such apparent exceptions form the best test of a true induction. The mediæval faith in immortality was indestructible because it was not a mere engrossment with results, but derived from

and dependent upon that emphasis upon causality in which all the life and thought of the Middle Ages were rooted.

NOTES

[1] Grimm, *Teutonic Mythology*, 338; W. Müller, *System der Altdeutschen Religion*, 450; Ozanam, *Les Germains avant le Christianisme*, 73.
[2] De Bell, *Gall.* V. 21.
[3] Meyer, *Judiciares Institutions*, 37.
[4] Bury, *Hist. Later Roman Empire*, I. 34.
[5] Hilari fragmenta, III. fol. 1314. "Novam legem introducere putaverunt ut Orientales episcopi ab Occidentalibus judicarentur." Mohler, *Athanasius*, II. 75.
[6] Max Müller, *Last Essays, Second Series*, 240 *seq.*
[7] Gibbon, *Hist. Rom. Empire*, VI. 332.
[8] In stating the revenue thus, I have struck an average between the different accounts.
[9] Bury, *Hist. Later Rom. Empire*, II. 267.
[10] *Ibid*, II. 270. In this and a previous quotation I mean nothing invidious towards a really able writer. He merely slips into a stock sentiment among historians.
[11] Townsend, *Asia and Europe*, 70. Townsend has thus casually worked out for himself a glimpse of my theory.
[12] Hobhouse, *Morals in Evolution*, II. 129.
[13] Deussen, *Philosophy of the Upanishads*, 50.
[14] *Summa Theologiae.* Cf. Ranke, *Hist. Reformation*, 116.
[15] Bury, *Later Roman Empire*, I. 16.

CHAPTER II

MEDIAEVAL MORALITY

I. *Asceticism*

The Moral Order. We have seen the fundamental defect in all ancient ethics whether of the West or the East. In Western or classical morality the conviction of any moral order of the world has virtually vanished. The idea of causality has so faded that the Infinite is regarded merely as the unlimited, therefore the formless and repulsive. Under such conditions the belief in the moral order of the universe could survive only as a vague, unaccountable emotion—a dim feeling which Greek art veiled in artistic forms, and Stoic rhetoric hid under that most ambiguous and question-begging of all phrases, "the natural." Thus morality was left without any really logical basis. "The dear city of Zeus" of which we hear so much, was a city built upon a fog-bank of mere emotion.

In the ethics of India the defect was exactly opposite but equally fatal. There we have a quenchless faith in a moral order which "makes for righteousness" with all the power of infinitude. But this belief in the Infinite has lost out of its one su-

preme quality, that of self-sacrificing love; and without this quality—as it has been one of my main purposes to prove—it is impossible to logically maintain the idea of an infinite cause or of any true cause whatsoever. And so the Indian vision of the moral order shrivelled into that of an endless series of rebirths. Thus by a strange and awful perversion the hope of salvation has become a cry for deliverance from the moral order of the world.

But Christianity has restored the revelation—given germinally, as I maintain, in the very nature of human thought—that God is love. It has restored that revelation so clearly, signed and sealed it in so divine a manner, that it can nevermore be lost.

Human Freedom. Of course there is much that tends to obscure this revelation. But Catholicism greatly checked these obscuring forces when despite its reverence for St. Augustine's authority, it clung to the fundamental fact that man is free. For if we believe in freedom the so-called problem of moral evil seems to me to rest upon little more than quibbling.[1] Not even omnipotence could make man free, that is, make it possible for him to do wrong and at the same time make it impossible for him to do wrong.

The Basis of Morality. Such then is the Christian basis of morality—the will of an infinite, holy, self-sacrificing God. It cannot be denied that such a conception places a very deep and wide gulf between the ideal and the actual. On the one side is

the Holy Will seeking to draw men into a likeness unto Himself, offering to them the power "to become the sons of God." On the other side, is the actual man, selfish, passionate, sensual, with a deep-rooted aversion to obeying the Divine Will, which certainly comes very close to enmity. It was the full, clear recognition of this awful chasm between the actual and the ideal, the natural and the spiritual which gave rise to Catholic asceticism.

Oriental Asceticism. How far away the modern mind is as yet from any real science of history is well evidenced by the ordinary historical treatment of this subject of asceticism. The very word has an evil sound to the modern ear; it suggests nothing but repulsiveness and absurdity; there seems no suspicion that it, like every other wide-ruling theory of life, must have its lights as well as shades. For example, the eminent historian of European Morals has devoted almost a hundred pages to a recital of the horrible tortures inflicted upon themselves, by the anchorites of Egypt and Asia Minor. But suddenly the curtain falls upon these horrors and rises upon a picture of the mediæval monk as he was in Western Europe. He is "invested with the aureole of a sacred poverty." Before him are "boundless vistas of missionary zeal and labors." His profession was "the open road to heaven; also the portal to bishoprics and frequently to the Popedom." It was the sole opportunity then existing in the world for a life of study. At the same time "the monk taught to the idle savages around him the holy

lessons of labor." His retreat " often became the nucleus of a city. It was the centre of civilisation and industry, the symbol of moral power in an age of turbulence and war." [2]

Such are the two scenes, the Asiatic and African detailed at great length, the European curtly outlined in a page or two. But of the contrast between them the historian seems hardly conscious, at least he makes no attempt to explain it. Nor does any other historian so far as known to me.[3] And yet to those who remember what was said in the previous chapter the explanation is evident. Egypt and Asia Minor had been steeped in asceticism from time immemorial; it could do nothing for them except to drag them deeper into depths where they had been sinking for centuries. But to the free, proud fighting savages of Western Europe, Catholic asceticism was a mighty regenerating power, because it brought to them what they needed most, taught them golden lessons of self-sacrifice, humility, obedience, surrender to the unseen and the Infinite.

Catholic Asceticism. It is so important to understand fully this mediæval asceticism that it may be well to specify its two main differences from all other ascetic types.

First, Indian asceticism conceived of the moral order as a cruel bondage from which it despairingly seeks deliverance. But Catholic asceticism conceives it as a Holy Will and seeks not for deliverance therefrom, but for forgiveness and recon-

ciliation. Secondly, this Catholic type is instinct with the true conception of self-sacrifice not as self-torture but as *effort for another*. "Such asceticism has a spirit of love pervading it which softens its sternness, removes everything repellent and ungracious and so produces what we might call the purest quintessence of human feeling." [4]

II. *The Moral Standard*

Such then is the basis of morality—the holy Will of the Infinite, loving cause. That proposition is but a repetition of the almost unanimous belief of the Christian world in all ages. The only merit that I can claim is to have shown that this belief is something more than a mere intuition, one of those instinctive beliefs which we are mysteriously compelled to accept without knowing why. On the contrary, it is the most absolutely verifiable of all beliefs, since its denial involves the utter extinction of all thought. For all thinking is a relating of cause and effect; and the only final, fully satisfactory conception of a cause is infinite activity exerted for the sake of others.

The Ethical Code. Morality, then, has an immovable basis; we are rationally bound to obey an infinite—not arbitrary but loving Will; to disobey is rebellion against God and His goodness. And so we come to the next great question: What is the moral standard? What is the code of duties which He imposes upon us?

The mediæval answer was that the code is given by divine revelation. But that answer seems to me insufficient for at least two reasons: first, the Gospel does not claim to give a complete code but only the germ thereof in a few great principles; second, and much more important; even if we suppose a code divinely revealed some means of interpreting it are still requisite. The moral differences of different ages and races are largely due to the special stress laid upon different principles or parts of the same code; precepts that seem of overwhelming importance to one age, seem secondary and even trivial to another.

And just here mediæval ethics was most defective. It did not rightly estimate the relative importance of the virtues according to their results upon the welfare and happiness of mankind. It placed too great a value upon the formalities of religion, orthodox belief, the scruples of piety, too little upon those great practical virtues, upon which the very existence of society depends.

Justice. The principle of justice, for example, was almost as much neglected in the Middle Ages as in India. A striking proof thereof was the long persistence of slavery. The sentiment against human bondage was widely prevalent, but it was to a great extent neutralized by the ascetic view of all mundane conditions as equally wretched and by that reverence for ancient institutions and fixed order which the retrospective impulse fosters. And so as late as the ninth century we find Christian

leaders condemning flight from bondage as a mortal sin and denying the rites of the church to the fugitives.[5]

Veracity. Truthfulness also did not receive that attention which its importance demanded. Even some of the Christian Fathers deemed it no sin "to deceive the enemies of religion." And in mediæval literature mendacity seems to be absurdly chronic. Doubtless, however, too much has been made of these preposterous legends which were doubtless due more to ignorance and superstition than to contempt for truth. Still it cannot be denied that in the later Middle Ages there was a growing tendency to enforce uniformity of belief and to make honest search after the truth very difficult and dangerous. In earlier times it was not soo. St. Francis, for example, was always "exceedingly critical of the ecclesiastical system and in favor of individual liberty in thought and life." [6] But in later times truth was not so precious as it was to this prince of mediæval mystics.

III. *Ascetic Humanitarianism*

We see then in mediævalism a certain inattention to practical results which caused real progress to be always slow and often very dubious. This defect becomes still more obvious when we turn from the special virtues to a more general view of the Catholic ideal as a whole.

The Love of Humanity. The ideal was certainly

a sublime one. Mediæval morality ascribed an infinite value to the human soul, it lifted high above all other virtues, that of universal charity. Of such conceptions there is hardly a hint in classical ethics; the "human brotherhood" of the later Stoicism is but a universal companionship in suffering, not even relieved by that Epicurean tinge of hopefulness which beautifies the poetry of Lucretius and which we have found to be characteristic of the best Greek and Roman life.[7] And even in Hindu ethics the love of mankind is swallowed up in a vaster but whimsical charity for all living creatures; and it was further vitiated, perverted into mere pity by that pessimism into which Indian thought finally sank.

But mediævalism preserved its sublime ideal—the human brotherhood and the coming kingdom of God—full and radiant as it came from the lips of Jesus. It is one thing, however, to cherish an ideal descended from the past; it is quite another thing to look forward, to devise methods, to work for the realization of that ideal. And just there, it seems to me, lies the chief defect of mediæval morals. For, to rely upon religious rites, correct beliefs and emotional crises for the realization of this ideal seems very much like reliance upon the *magical*. Reason cannot discover and experience appears to deny that there is any necessary connexion between the means and the end to be realized.

Among all the many verifications of our thesis there is none more striking and conclusive than this.

On the one side we have the Infinite Love of God co-operating with an innumerable host of immortal spirits, for the coming of His kingdom on earth; that is the emphasis upon causality. Upon the other side, a strange lack of definite plans and practical endeavors for the realizing of this great ideal.

Emphasis upon the cause and corresponding neglect of results.

NOTES

[1] Hobhouse (*Morals in Evolution,* II. 132-5) quibbles thus at great length. It is all virtually an indictment of God as guilty of all our wrongdoing, because he has made us free.

[2] Lecky, *Hist. European Morals,* II. 194-5.

[3] Except Adams (*Civilisation during the Middle Ages,* 134) who ascribes it "to the Western organising and legal genius." But that genius is altogether mythical, and secondly, even if actual it would not explain the contrast.

[4] Caird, *Evolution of Religion,* II. 290. Also Hutton, *English Saints,* 80 *seq.*

[5] Carlyle, *Hist Mediaeval Political Theory in the West,* 204 *seq.*

[6] Creighton, *Historical Lectures and Addresses,* 109. Also p. 90 and 32-33.

[7] Book II. Chap. I. Sec. 4.

CHAPTER III

MEDIAEVAL SCIENCE

I. *Relation to Previous Epochs*

As was stated at the close of the preceding chapter, there is an exact correspondence between the mediæval view of the moral order and of the physical order of the world. The same emphasis upon causality which led to a profound insight into the basis of morality led also to an equally profound insight into the basis of physical science. The same inattention to results which prevented the formation of a complete and rounded system of ethics, also prevented the formation of the physical sciences. It is these two facts which we have now to prove.

India and Greece. No one in this age will deny that the basis of all physical science is the conviction of the absolute invariability of all natural processes. And we have seen that India's emphasis upon causality led her to make this conviction the one pivot upon which her whole intellectual and moral life revolved. But there is no reason for supposing that the Middle Ages borrowed this view from India. The classical philosophers began borrowing from India as early as 500 B.C., but they never appropriated

this doctrine of invariability;[1] for them nature was a medley of law and chance or accident; even the atoms of Lucretius spontaneously deviate from their courses. And the Christian ages were still less likely to borrow this doctrine from India, for there it was clothed in a drapery which horrified Christians.

The Science of Jesus. Furthermore there was no need of borrowing; for, from the very first this conviction of invariability had vibrated through every nerve of Christian faith. The love of nature shown by Jesus is a mere commonplace; but so far as I know, no one has noted the recognition in Jesus' sayings, of every one of the essential elements in the modern, scientific conception of invariability. First, there is full recognition of perfect exactitude; the very hairs of your head are numbered; not a sparrow falleth to the ground, etc. Second, infinitude recognised in his law of retribution and in his comparison between the lily and "Solomon in all his glory"; third, absolute impartiality, the sun rising and the rain falling on the just and the unjust; fourth, the *evolutionary* element, the leaven in the loaf, and the mustard-seed. No element of the scientific conception is wanting. And if it is objected that these things are dimly suggested rather than openly expressed, let it be remembered that the treasures of the Gospel are like the resources of Nature, not exposed by the wayside, but left to be dug out of their hiding-places whenever man becomes capable of using them.

St. Augustine. Christian monotheism, then,

from its very beginning was instinct with a true scientific insight into the general character of all natural processes. All things have their origin in the workings of one infinite, self-sacrificing Cause; and hence all natural processes are immutable, impartial and evolutionary. The master-mind of St. Augustine, in his "City of God," has unfolded this view with a wonderful felicity.[2] God, he says, has everywhere impressed on nature regularity, beauty and order; He has caused everything in the physical world to happen according to number, weight and measure; He has not left even the entrails of the smallest, meanest living creature, the feather of a bird, the little flower of a plant or the leaf of a tree, without its exquisite harmony of parts. Of that view, as I now hope to show, the scholastic philosophy of the Middle Ages was the systematic development.

II. *Scholasticism*

The very heart of scholasticism as all will concede was its doctrine that universals are real. Aristotle, that representative mind among the Greeks, vigorously combated the doctrine ascribed to Plato that the universals had an existence independent of things in some mystic realm of their own; but whether Plato seriously taught that will never be known on account of the poetic character of his philosophy and the changes it underwent at different periods of his life; nor is the decision of this point at all material for our purpose. At any rate, Aristotle

substituted for it his own theory that universals existed only in things, *in rem*. In other words, universals are those "occult qualities" which play so grand a part in the Aristotelic physics: bodies fall, for example, because they have the quality of heaviness inherent within them; other bodies rise because they have in them the quality of levity. Such loose generalizations or rather mere identical propositions satisfied the defective sense of causality in this representative Greek mind.

But the great thinkers of the Middle Ages, with their profound sense of causality, were *not* satisfied with these shallow generalizations and purely verbal explanations. They had an immense reverence for Aristotle. Like the thinkers of India, they had to have some authority on which to rest and they had taken Aristotle partly because his writings had been made accessible through Arabic learning and partly because they shrank from Platonism in its pantheistic or Alexandrian form. But concerning this doctrine of universals, scholasticism, despite its Oriental submissiveness to authority, rebelled. Universals, it was affirmed, exist not only in things, but before things, *ante rem*. They were not mere occult qualities in things, but eternal laws, immutable types, invariable processes of causation upon which things depended. Above all they existed as ideas in the Divine Mind; and according to Thomas Aquinas they were of the essence of God.[3]

And this mediæval realism was certainly an immeasurable advance upon Aristotle's view of the

concept or universal as indicating only an "occult quality" in things. It opened the way to the scientific view of phenomena as the results of absolutely invariable processes of causation. The redness of the rose, for example, is due not solely to something within it, but to something beyond and before it—to an inconceivably complex process of causation in which the flaming atoms of the sun, the æther waves and the little rose are factors.

But are these processes realities? I answer that they are not real in the vulgar sense of being like things. But they are real in the sense of being the immutable methods of an infinite activity without which sensible things could not exist.

Whey then did the Middle Ages accomplish so little in scientific reseach? Our answer can best be given by a brief glance at the one branch of physical research that in those times was pursued with some degree of ardor.

III. *Alchemy*

Alchemistic studies seemed to have a peculiar fascination for the mediæval intellect. Even the sober-minded Aquinas [4] devoted himself with a good deal of ardor to such investigations. His great rival, Albertus Magnus, wrote a treatise upon metals and was the first, so far as known, to develop the idea of chemical affinity in the modern sense of the term.[5] It may be well to note as another indication of the special impulse dominating the Middle Ages,

that alchemy was entirely of Oriental origin; it was unknown in classical Greece or Rome.[6]

Nor was this alchemistic study altogether profitless. It opened the way to modern chemistry. As has been well said the theory of the three principles which it substituted for the classical doctrine of the four elements sheds the first ray of light upon the chemical constitution of bodies. To Paracelsus, greatest of the alchemists, the first school of real chemistry traces its origin.

Lack of the Critical and Verifying Spirit. But beyond this vague foreshadowing of what was to be worked out in the far future, mediæval research could accomplish but little. The instinct to generalize is universal and so almost from the start the human mind gets encrusted over with a mass of crude empirical beliefs to which it clings with all the tenacity that pride and ignorance can furnish. To break through that hard crust demands a revolutionary spirit. Consider, for example, the first law of motion, the elementary principle of all modern science; what a rude shock it was to the vulgar prejudice that had never failed to see motions gradually decreasing and finally coming to an end without any apparent cause. And so everywhere—in astronomy, in physics, in chemistry—the first revelations of physical science seem to revolutionize everything; and to the revolutionary spirit mediævalism was unalterably opposed.

Again, mediæval faith abhorred the verifying spirit, that cold, skeptical insistence upon proof so

indispensable to science. In a word, mediævalism hated the scientific *method.*

Roger Bacon. The career of Roger Bacon seems to be the perfect mirror of the fate of science in the Middle Ages. A man, sublime in genius and still more in his life, so devoted to observation and experiment that he counted "experience the queen of all the sciences and the end of all speculation,"[7] so scornful of authority that he even wished that all the books of Aristotle were burned,[8] so critical and exact in his methods that five hundred years before Kant he had discovered that nothing was scientific unless it was mathematically verified[9]—he combined all those high qualities through which modern science has gained its victories. And yet for no other fault than these qualities he was held a prisoner in his cell for almost a quarter of a century. What could more fully picture the mediæval antipathy to the scientific method?

The same qualities re-appear in his philosophic views. He very freely criticised the scholastic realism of his age; but at the same time he was very far from being a Nominalist, much less a vapid Conceptualist.[10] More than any other thinker down to the present day, I think, he had divined the great truth which scholastic realism only vaguely and partially expressed; to wit, that the universal or concept, in its deepest, most essential meaning, signifies an invariable process of causation.

Bacon, then, despite his zeal for free inquiry and scorn of authority, was a true son of the Middle

Ages. I pass over many other corroborating proofs of this, but must dwell for a moment upon one of extreme significance—his bitter and persistent hatred of the Roman civil law which the kings were already striving to substitute for the customary and canon law of Western Europe. Bacon foresaw in this new policy adopted from the old Roman Empire, the ruin and overthrow of all that mediævalism regarded as most sacred and precious. The introduction of the civil law, he said, "will put an end to all religion and true wisdom and the peace of the world will be destroyed."[11]

Coming events, we are told, cast their shadows before; and Bacon's gloomy career was a dark shadow of that scientific movement which as yet was far-away in the future. For in his genius the two world-impulses had reached a sort of unstable equilibrium. On the one hand, he is fully imbued with the mediæval tendency to emphasize causality; he never forgets that "the end of all true philosophy is to aim at a knowledge of the Creator through knowledge of the created world."[12] Thus he embodied the mediæval conception "of a world ruled by order, a world ruled by law, and that is the fundamental postulate of modern science."[13] But on the other hand, he has also the Greek and modern spirit of free inquiry—the scorn of authority, fearless criticism and unwearied observation of results. Thus he combines the two impulses, the one creative of the true scientific aim, the other creative of the true scientific method. But the latter the Middle

Ages did not love; and so they kept Bacon in chains.

And for the same reason they failed in science.

NOTES

[1] Plato's "eternal" ideas form no exception, as I have shown.
[2] *De Civitate Dei,* V. 1.
[3] Prantl, *Gesch. d. Logik,* III. 115, as to Aquinas' position. Also upon Albert consult Haureau, *Philos. Scolastique,* II. 98. It is even doubtful whether Abelard's so-called conceptualism was more than a qualified realism: see Kaulich, *Gesch. d. Scolast. Philos.* I. 393. Consult also Staudenmaier, *Scotus Erigena,* I. 414.
[4] Hoefer, *Hist. de la Chimie,* I. 369.
[5] *Ibid,* 385. "Propter affinitatem naturæ metalla adurit."
[6] Kopp, *Gesch. d. Chemie,* 30.
[7] *Opus Tertium, Cap.* XII. Brewer, p. 43. Also, *Opus Magnum,* 448.
[8] *Compendium Studii, Cap.* VIII. p. 469.
[9] "Et sic potest ostendi quod nihil in rebus sciri potest sine geometriæ potestate." *Opus Mag.,* 66.
[10] Charles, *Roger Bacon,* 202.
[11] *Opus Tertium, Cap.* XXII.
[12] Adamson, *Philosophy of Science in Middle Ages,* 20.
[13] Iverach, *Descartes and Spinoza,* 6-7.

CHAPTER IV

MEDIAEVAL ART

I. *The Love of Nature*

We have seen that mediævalism established in European thought the basis of all scientific knowledge, to wit: the conviction that the processes of natural causation are infinitely perfect and immutable; but on account of its repugnance to scientific methods, it was not able to distinctly define, to formulate under mathematical laws these processes. But art does not demand this stringency and mathematical exactitude; on the contrary, its very mission is to *dimly* suggest to æsthetic feeling what as yet is not distinctly disclosed and formulated by science. Hence came that true Oriental love of nature, that delight in the beauty, the order and harmony of her processes which runs like a thread of gold through the art of the Middle Ages.

The Greek Fathers. This sentiment for nature, as we have seen, was lacking in classical art, except for some faint signs of it in the poetry of the Alexandrine period when Greek thought was yielding to Oriental influences. But it revealed itself fully and with power wherever the Catholic em-

phasis upon causality or dependence had begun its transforming, regenerating work. Its first stirrings are plainly discernible in the writings of the Greek Fathers. "When," says Gregory of Nyssa for instance, "I see every ledge of rock, every valley and plain covered with new-born verdure, the varied beauty of the trees, and of the lilies at my feet decked with the double charm of perfume and color, when in the distance I see the ocean towards which the clouds are borne, my spirit is overwhelmed by a sadness not wholly devoid of enjoyment. When in Autumn the fruits have passed away, the leaves fallen and the branches of the tree dried and shrivelled are robbed of their leafy adornments, we are instinctively led amidst the everlasting and regular change in creation to feel the harmony of the wondrous power pervading all things."[1]

It is easy to see the kinship of such a passage as this with the Oriental love of nature; but there is need of guarding against a possible error. Many writers have been inclined to interpret Christianity as a synthesis or blending of Oriental and classical elements. That view seems to me a delusion, and I find in the Alexandrian poetry referred to above, a precise image of what such a synthesis would bring forth. The Alexandrian poet has made such a synthesis; he has borrowed something of the Oriental sentiment for nature; but after all he has only the shell, the real heart and life of that sentiment has escaped him. "In his effort to draw closer to nature and imbibe her influences, he does not like *the*

Oriental or modern poet surrender himself unreservedly to the dominion of the outer world. He does not feel the pulsation of a larger life of which the human soul is but a fragment or strive to catch in the grander or more solitary scenes of nature mysterious voices and intimations of something higher than man."[2] On the contrary, it is the human individual and his feelings—generally of an erotic cast—that form the centre of interest: nature is but the background. Instead of seeking to interpret nature, the poet is merely a sympathetic spectator of his own emotions. There is no suggestion of a spiritual reality that lies behind the show of things; the universe is not an emblem of the invisible to be deciphered.[3]

Therein we have a case of synthesis; the Greek comes under the influence of Orientals and borrows from them, but he remains triumphantly Greek to the last. The relation between the mediæval and the Oriental love of nature, however, is that of real kinship; neither has borrowed from the other, but both are affiliated products of the same intense emphasis upon causality or dependence.

Germanic Sentiment. The love of nature does not manifest itself in the poetry of Northern Europe until after the Catholic regeneration. Few if any traces of it are to be found in the earlier epic poetry, that salvage from the wreck of paganism;[4] but they abound in the lays of the Minnesängers, the poets of Catholicism and chivalry. And yet the vanity of Teutons has led some of them to imagine

that the modern love of nature sprang from a special virtue innate in Teutonic blood.

Animal and Plant Life. One notable sign of the growing sentiment for nature in the Middle Ages is the popularity of the animal Epos. This kind of composition wherein animals are the chief personages in a truly epical narrative was unknown among the Greeks and Romans,[5] but has always been very common in the East. And in the Middle Ages it became an unfailing source of delight all over Western Europe. The best specimen, the Romance of Reynard the Fox, gained an even wider vogue and was even more assiduously cultivated in France than in Germany. Evidently the Oriental conviction of the unity of life had taken a strong hold upon the Western imagination.[6]

In another cognate type of literature, plant life became the centre of poetic interest. Its most famous specimen, the Romance of the Rose, wherein a rose occupies the same position that the city of Troy does in the Iliad, gained an unexampled success, was translated into many languages and everywhere received with extravagant delight.[7] And not only in the stately form of these epical allegories,[8] but in the simple homely songs of the common people this same deep, mystical passion for nature is displayed: "a single picture reveals sometimes the kinship of all living beings, as for instance, the image of the linden tree which is mourning with the deserted maiden." [9]

St. Francis and Dante. This poetic sentiment,

this Oriental sense of the unity and common dependence of all life was less developed in Italian literature. But the surest scientific tests of a general law are always the apparent exceptions to it, its quantitative variations; and so we shall consider this Italian peculiarity at the close of the chapter. Suffice it now that the noblest Italians, those whose genius rose above local peculiarities into full communion with the spirit of the Middle Ages, were passionate lovers of nature. Think of St. Francis for example. Who has not heard of his sermon to the birds? "My brother sparrows and my sister sparrows, please be still for a while that I may preach the word of God to you;" and the story of his life is crowded with passages of a like tenor. Dante, the master-mind of the Middle Ages, owed much to St. Francis;[10] and he too found in every humble object something that made "the universe resemble God."

Art. Gothic architecture also was in large degree a creation of the passion for nature. The still solemn life of the forest was mirrored in the vaulted aisles of the cathedral, its darkened recesses, its air of mystery and radiance of color. The Greek temple was a chiselled geometry, the Gothic cathedral a forest cut in stone.

Society. Not only literature and art but the very structure of mediæval society reveals this enthusiasm for nature. The chief distinction between the classical and feudal regime is that the former is civic and the latter rural. The basis of feudal

sovereignty is not personal but territorial. It is the land which gives rank and power. The landless man is a serf, an appendage of the soil; the man with land is a sovereign.

Discovery. At the close of the Middle Ages this true naturalism had become a fixed habit of the European mind. Even the seamen and adventurers who then went forth to explore the world display a poetic sensibility to the charm of natural scenery such as the highest culture of Greece or Rome never attained. Evidently the mediæval love of nature aided not a little in ushering in that grand era of maritime discovery which gave a new world to Christendom.

II. *The Special Arts*

Music. Classical art seems to have had a very slight knowledge of music in the fullness of its modern meaning. So far from the Greeks having practised harmony, "it remains to be proved that their vocal melody consisted of anything more strictly musical than intoning." [11] And even such rudimentary knowledge as they possessed of the musical quality in sounds seems to have been mainly derived from Oriental sources.

Musical harmony is the gift of the Middle Ages to the world's art. Its discovery belongs to the same era as that of the pointed or Gothic arch and both were born of the same intellectual impulse. Both exemplify my law that beauty is the *dim* revelation

of unity subsisting between things that outwardly seem most diverse. Musical harmony is the unity of contrasted sounds or noises; the pointed arch, according to Ruskin, is a unity of two contrary curves where the essentially curvilinear character is *obscured* by being blended with the government of a right line.[12] The one discovery stands in the same relation to the dull monotony of Greek intoning that the other does to the heaviness and insipidity of the Roman or semi-circular arch.

The first known mention of harmony in the technical sense dates back to the times of Gregory the Great. But it was not until the age of the crusades when mediævalism was culminating, and majestic structures in the pointed arch style were rising all over Western Europe that "the art of descant was invented and the evolution of modern music was fairly under way." [13] Thus out of the mediæval regeneration rose modern music—the people's art.

Gothic Architecture. We have already explained two main characteristics of this architecture, the pointed arch and the accentuation of the mediæval sentiment for nature. We need now only to add a third characteristic, by far the most significant of all—the harmony between the interior and the exterior. Greek architecture was limited to the outer form; the exterior is of a simple but majestic beauty; the interior is contracted and paltry.[14] But in the cathedral, the exterior wonderfully reflects the spirit and purpose of the interior. Without, the

perpendicular lines, the uplifted spires, the flying buttresses veiling their mechanical purpose behind an aerial beauty, the circular window with its brilliant petals figuring the rose of eternity—within, the lofty aisles, the vaults interwoven like a forest, the host of attenuated columns, the dim vistas, the solemn shadows intermingling with radiant color, the maze of details fashioned from the flowers by the wayside—all unite to form one vast symbol "beginning and ending with the cross." Everything urges the imagination towards the infinite conceived as self-sacrificing love. The utmost strivings of man after the unity of causation find their artistic expression in the Gothic cathedral.

III. *The Italian Renaissance*

The Renaissance I define as an *emotional* revolt against the mediæval impulse. It was natural that such a movement should have not only its origin but its chief strength in Italy. The counter-impulse, realistic, sensuous, utilitarian, against which the Catholic movement was striving, was of course present everywhere throughout Europe. But in Italy this counter-impulse had been greatly strengthened by those classical memories and traditions which seemed to cling to the very soil and by the commercialism stimulated through the wondrous growth of the Italian cities—perhaps too by closer acquaintance with the darker side of papal life in Rome—in fine, by a host of influences known and

unknown. Hence it happened that feudalism there had but a stunted growth: in Italy, according to one of her most eminent historians, "feudal nobility resembled an exotic plant transferred to an uncongenial soil."[15] And so in art: "the Italians failed to perceive the significance of Gothic art, its symbolic meaning was lost upon them."[16] The strength of scholasticism also lay beyond the Alps; even Thomas Aquinas, the only Italian schoolman of the very first rank, was educated in the North. The chief universities of Italy were devoted not like those beyond the Alps, to theology and philosophy, but to medicine and Roman law—studies none too friendly to the Catholic regime.[17] And so these and many other influences were continually strengthening that resistant force, that counter-current of feeling which as mediævalism decayed finally burst forth like a flood in the Renaissance movement.

A justly celebrated historian of this period has maintained that "what is called the Paganism of the Renaissance is indigenous in Italy."[18] But assuredly that cannot be proved. And this ascribing off-hand of special traits as innate in particular tribes or peoples is fatal to history as a science. What I seek here is to take our common humanity and then to show how under historically verified circumstances but under one fundamental law, it has varied in this direction or in that.

Emotionalism. Note now that the Renaissance was through and through an emotional movement. It differed from the Protestant movement as feeling

differs from thought. It had no definiteness of principles or fixedness of purpose. The men of the Renaissance never really broke the bonds of that mediævalism against which they raged. They seem to have hardly dreamed of revolting against the hierarchy; they merely inveigh against its corruptions and abuses with something of the same petulance with which we are apt to murmur against the inclemencies of the weather. When they became skeptics they simply put some silly superstition in the place of religion; thus, one writer denies the divinity of Christ but thinks that he wrought his miracles "through the influence of the stars." Faith was gone but magic held its ground.[19]

In morals the men of the Renaissance descended easily to the depths of Greek sensualism; the most damning of all Greek vices—that against nature—raged "like a pestilence at that time in Italian cities, especially among the higher classes of society." [20] But withal, they never gained the gift of Greek self-complacency. They were conscience-stricken; the terror of death pursued them; they oscillated between orgies of lust and paroxysms of religious revival. Hence came what historians have described as "the double mind of the Renaissance."

Relation to the Reformation. The Renaissance not only differed essentially from the Reformation, but it hindered far more than it helped the later movement. Where the former was strongest the latter was weakest, and conversely. In Germany, for example, there can hardly be said to have been any

Renaissance in the Italian sense. One generation at the opening of the thirteenth century had produced four German poets who still rank among the immortals; after that three centuries pass "without a poet whose name is counted among the great names of history." It was exactly opposite in Italy; there so much energy was spent in a tumult of emotions that none was left for the quiet, persistent work of real reform.

NOTES

[1] Quoted in Humboldt's *Cosmos.*
[2] Butcher, *Some Aspects of the Greek Genius,* 264.
[3] *Ibid,* 323.
[4] Bunsen, *God in History,* III. 226.
[5] Gervinus, *Gesch. d. Deutschen Dichtung,* I. 132.
[6] D'Assailly, *Les Chevaliers Pöetes, d. l'Allemagne,* 192.
[7] Roquefort, *La Poesie Francaise de le douz. et treiz. Siècles,* 170.
[8] The Partenoper was another famous production of the same type. See *L'Histoire Lit. de la France,* XVI. 233.
[9] Francke, *Hist. German Literature,* 118.
[10] Creighton (*Hist. Lectures,* 191) says that St. Francis' message "lies at the bottom of all that was loftiest in Dante."
[11] Hullah, *History of Modern Music,* 92. Helmholz (*Lectures,* 102) slightly qualifies this.
[12] *Modern Painters,* 275.
[13] Hullah, *Hist. Music,* 77. Grove, *Dictionary of Music,* I. 670.
[14] Schnaase, *Gesch. d. bild Kunst,* IV. 193. Die griechischen Styl erschöpft seine Schönheit in Aeussern und vernachlassigt das Inneres in gothischen Styl ist dieses der vollendeten Theil und selbst das Aeussers trägt das Gefrage der Innerlichkeit. Dort ist jedes Einzelnes bestimmt begrenzt; hier ist das Bestreben darauf gerichtet es sanft in ein anderes aufzulösen und hinuberzufahren. Also, IV. 87.
[15] Villari, *History of Florence.*
[16] Symonds, *Italian Literature,* I. 52.
[17] Janssen (*Hist. German People,* II. 168) inveighs against Roman Law as one of the chief foes of Catholicism. Pastor ascribes evils of Renaissance to its being derived from Roman instead of Greek sources. He does not explain, but presumably has Roman law most in mind. Pastor, *History of the Popes,* II. 201.
[18] Symonds, *Italian Literature,* I. 33 *seq.*
[19] Burckhardt, *Civilisation of the Renaissance in Italy,* 502.
[20] Pastor, *History of the Popes,* I. 25.

CHAPTER V

SOCIAL EVOLUTION IN THE MIDDLE AGES

I. *Political Structure*

The political or external structure of mediæval society is summed up in a single, familiar word—feudalism. But alas! that word still remains one of the chief enigmas of history. Thanks to the toil of many noble scholars we have learned much concerning the details of the feudal system; but this knowledge is of a rather antiquarian or merely descriptive kind. But what we desire to know is: why did this peculiar system gradually uproot all previous ones and over-spread all Western Europe? That no one has told us.

Reversal. Reasoning from mere analogies—in other words the fallacy of resemblance—has been the chief cause of the darkening of knowledge concerning feudalism. Historians find a dim analogy between some part of the Roman or Germanic system and the mediæval; that they say is "the germ" or "the faint beginning;" all is explained. This analogical method has the merit of being very easy: for, there are no social systems so different as not to have some resemblances. But it is a most un-

scientific method, and in the present case fatally so. For it hides the fundamental principle of feudalism which I define as follows:

The feudal system is the *entire reversal of both the Roman and Germanic politics.* To prove this let us consider what are conceded to be the two essential features of the system.

Feudal Sovereignty. Note first that feudal sovereignty is a curiously restricted and diffused authority; the sovereign is at the same time a subject. The petty lord was a sovereign within his own domain, but he was also the vassal of his over-lord and the latter was the vassal of some still higher power and so on indefinitely. The king or emperor, on his part, had but the shadow of authority; the substance thereof was diffused among the inferior lords. Thus feudal sovereignty was everywhere dominated by the principle of dependence and subordination; it was a complicated system of reciprocal duties rather than of distinct and sovereign rights.

Both in theory and in practice mediævalism denied the sovereignty of the state. The state, according to St. Augustine,[1] would never have existed but for Adam's fall. "Kingship," said Gregory VII., "is the invention of those who in ignorance of God and by the instigation of the devil have presumed to tyrannise over their equals."[2] And so well did the church maintain this theory that in the opinion of some, England was the only really sovereign state in Europe up to the very close of the Middle Ages.

Thus the mediæval emphasis upon dependence

has transformed the idea of sovereignty; the ancients conceived it as an absolute right, the Middle Ages as a system, a hierachy of duties. But a still greater transformation was wrought when the basis of sovereignty became territorial instead of personal. The land was made the source of rank and political authority.[3] As one of the greatest historians has said, "the land had become the sacramental tie of all political relations."[4] In that happy phrase we see the intensity, the religious power of that nature-love which, as already shown, thrilled the heart of the Middle Ages. They believed, as Albertus Magnus expressed it, that the image of God, His love and power were as really present in the brute earth as with man or the angels.[5] "He has willed that His perfections should go to the very depths of creation."[6] And so there arose a great reverence for the land as the almoner of the divine bounty, as the universal bond which made the king in his palace and the serf in his hut both equally dependent upon the Infinite.

Furthermore this reverence for the land is distinctively Oriental. In India the unit of the social structure has always been the village community a little group held together by the land which they occupy.[7] Despite the havoc of repeated invasions India to-day is simply a vast congeries of these primitive land-units. The land is also a chief source of social consideration.[8] In the place of the classical passion for personal liberty, the Hindu substitutes an almost fanatical attachment to the soil. It

is said indeed that traces of a former feudal system still survive everywhere in India.[9] They are to be found also in Persia [10] and other parts of the East.

Feudal Tenures. The second element of feudalism—its land tenures—also exactly reverses Germanic and classical polity. The chief aim of Roman law, as we have seen, was to magnify and consecrate individual rights of property: Hindu law, on the contrary, minimized them. The Middle Ages, like India, dominated by the impulse of dependence, also restricted rights of property to the uttermost. Gradually the old absolute tenures disappear. The land-owner voluntarily surrenders his unconditional title in fee simple; his estate is encumbered with a host of charges and services; it cannot be alienated without the consent of the overlord who, indeed, at first appears as the vendor; it is not even strictly heritable, for the ownership of the heir depends upon permission and investiture by the suzerain. Thus an inconceivable complexity of titles arose; in England there are instances known where the holder of the land had nine different lords over him, all of whom were regarded as holding one and the same piece of land.[11]

Such then was feudalism. It was an attempt to organize society by means of spiritualising influences—by instilling into men's minds the conviction of their common dependence upon each other and upon the Infinite. As such it was diametrically opposite to the classical attempt to organize society

by first gathering men within city walls, and then still more widely uniting them within a vast empire held together by the brute power of the Roman legions.

The ideal of the Middle Ages, I think, was a far nobler one than that of classic antiquity. But in the realizing of that ideal there was a most lamentable deficiency; even Catholic historians have to concede that.[12] In fine, the politics of the Middle Ages seem to have precisely the same defect that we have found in their ethics and their sciences—a majestic ideal without any adequate *method* for its attainment.

II. *The Restriction of Commercialism*

We pass now from the external or political structure of mediæval society to its inner life—industrialism. And here too we find the same reversal of Greek and Roman policy, the same turning towards the ideals of the East. Labor is cause, wealth its result; and so the Middle Ages, like India, greatly exalted labor but laid many restrictions upon the wealth-seeking spirit. Let us begin with the second of these two main characteristics of mediæval industry—the curbing of commercialism.

Not by any means that the Middle Ages were blind to the necessity and benefits of trade. Nor were they poisoned by that Greek and Roman militarism which despised all labor except that of the soldier. Their thinkers recognised that trade re-

stricted within its proper sphere was simply one form of labor, and as such was to be honored and granted a fair reward. But they saw also that commerce was peculiarly prone to transcend its normal functions. It tended to monopolize, to speculate in human toil, to enslave all other kinds of industry. Left to itself, unguarded, unchecked, it inevitably developed into a deadly sin and a public peril.

This mediæval distrust of commerce is summed up by Thomas Aquinas as follows: "Trade is rendered lawful when one seeks only a moderate gain for the maintenance of his household, and especially for the relief of the poor; still more when one pursues trade for the sake of the public welfare in order that the country may not lack the necessaries of life and not as the end but as the wages of his labor.[13]

Mediæval law and society accepted this view without questioning or dissent; and accordingly commerce, the acquisition of the products of labor in order to make a gain out of them was placed under severe restraints. Some of these restraints we have now to notice.

Restriction of Property Rights. Of this we have already spoken in discussing the land tenures of feudalism. Here it is needful only to add that theoretically mediæval thought seems to have gone far beyond mere restriction. St. Augustine, the founder of Catholic theology, taught what has been rightly called, "a sort of sacred communism";[14] there were no natural rights of property; all things belong to God who grants them to men upon condition of

their fulfilling certain obligations. And the schoolmen generally appear to have thought that communism was the social ideal but that rights of individual property had been engendered and made necessary by man's fall and sinful state. Even the early common-law of England seems to have recognised only relative, not absolute rights of ownership; it simply protected legal possession.[15] And early German law insisted that every increase of value in land which was the result of labor should be to the profit of the laborer; and thus land leased to farmers gradually became their own possession.[16]

Usury. Modern critics have been too apt to treat mediæval peculiarities with something of the same disdain with which a boor regards a foreign language: it is mere gibberish and nonsense to him. The mediæval view concerning usury, for example, is flouted as a silly superstition sprung from undue reverence for the Bible and ignorance of "economic" principles.[17] The simple truth is that usury was made universally odious in the Middle Ages by the whole sweep of a social system so different from ours that it is very difficult for the modern mind to do it justice.

The economists learnedly refute the ancient Aristotlean fallacy concerning the "barrenness" of money. But what the Middle Ages really hated in the userer's money was its monstrous fertility. In Frankfort the ordinary rate was about 50 per cent.; in Vienna and other cities often as high as 86 2/3 per

cent. And these were for large loans; for smaller ones the rates were far higher. "God have mercy," one official complains, "it is a sin and a shame the way the poor man is robbed by the Jews who have established themselves in every little village and for every five florins lent require *six times as much*, charging interest and compound interest until the poor man has nothing left." [18]

In place of this infamous usury, the Middle Ages wished to substitute the principle of *co-operation*. All favor was shown to those mutual enterprises in which both the profits and the risks were shared between those who furnished the money and those who did the work. Mediæval industry, from that of the peasants in the field to that of the merchants upon the high seas was mainly conducted upon this co-operative principle. And therefore the schoolmen laid a great stress upon the distinction between usury and profit-sharing. To the impartial observer it seems a distinction rational and just. And yet modern economists have been wont to sneer at it as a mere subterfuge—a trick to evade the prohibition of usury.

Usury and the Greek Christians. We have already noted [19] a difference in the development of Oriental and Western Christianity—due to the different needs of the people—whereby the Greek church diverged more and more from the Roman, depressed the priesthood, succumbed to the secular or royal power, became very much like the ritualistic branch of Protestantism. This explains, I think,

why the Greek church, although the Fathers had unanimously condemned usury, gradually veered round to the Protestant view. And the superiority of the Byzantine Empire in commerce and wealth was very largely due to this sanctioning of usury.[20]

It is no part of my business either to praise or condemn but simply to understand. Suffice it then that we have here another witness to that emphasis upon causes or principles and that indifference to results which characterized Western Christianity in the Middle Ages.

Fixed Prices. Mediævalism also sought to restrain the greed and deceit of traders by a careful regulation of prices. Not even India had carried this espionage so far. Throughout England, for example, the theory prevailed even far down into the sixteenth century that "victual being a necessary sustenance for the body should not be at the seller's liberty."[21] The rate of profits was fixed; and the dealers were carefully watched lest "they should take excess lucre upon their selling," that is to say, more than one penny upon the shilling. For this purpose the mayor of each town made weekly rounds of inspection among the shops; and there were also minor officials charged with the special duty of protecting "the poor commons" against the rapacity of the traders.

The same policy prevailed in Germany. "In every well-regulated community," says a writer of that day, the right prices are fixed and the right wages for labor so that no one may come to want

and everyone according to his or her position have sufficient food and clothing.[22]

Insignificance of the Cities. England, just before the Black Plague, is supposed to have had a population of four millions. But London, the metropolis, had only forty thousand inhabitants; there were besides five or six other cities each containing on an average perhaps ten thousand people; the rest of the towns were mere villages, or rather hamlets. The wealth of the citizens was equally microscopic. In one town of some 180 burgesses, the richest man owned one cow, two hogs, a few hides and a little furniture—the value of the whole amounting to £4 and 8s. Everything was on this humble scale except in one particlar: sometimes one of these towns would be situated upon land owned by different feudal lords, each of whom would insist upon having his own court and gallows; and so we read of one small town which contained five gallows.[23] It is hardly surprising that the population of the towns did not increase rapidly.

If we turn to Germany the insignificance of the towns is equally manifest. Most of the many cities were but humble villages surrounded by a wall. The citizens "still were to a very large extent engaged in agriculture"—living within the walls but going outside to till their [24] miniature farms.

In speaking thus of these little semi-rural cities in England and Germany, I am not so stupid as to forget their wondrous beauty—above all the great cathedrals, made all the more sublime by the

filth out of which they sprang. But it was religion, not commerce, that created this civic majesty.

Concerning the French communes nothing need be added except an explanation of their ephemeral character. This is a vexed problem to which such eminent French scholars as Guizot and Luchaire have given opposite solutions. But our present point of view, I think, illumines the question greatly. In the Italian cities commercialism was strong enough to fight its own battles victoriously against the nobles and the papal power; in the rural cities of Germany it was too weak to awaken ecclesiastical enmity. But in the French communes it was strong enough to arouse the fiercest opposition; the church denounced the communes as conspiracies;[25] in 1213, the synod of Paris thundered against them "as synagogues of usurers and extortioners."[26] Thus the communes hated by the nobles as a matter of course, coquetted with by royalty merely for its own advantage bitterly opposed by the church, were entirely friendless and soon decayed.

An Objection. Such then is some small part of the proof that mediævalism strove to repress the passion for wealth, the trader's greed of gain. It is often urged, however, that the church was hypocritical in this: all the time she was filling her own coffers to the brim; she owned one-third of Germany, for instance, at the close of the Middle Ages. But such charges overlook the difference between endeavors for collective and for individual wealth.

III. *The Exaltation of Labor*

As mediævalism strove to suppress the passion for wealth so it strove for the exaltation of labor, the cause of wealth.

The Monasteries. The mighty uplift given to labor by the example of the early monks in Western Europe has been already referred to; and besides it is a matter so generally understood that it needs here scarcely more than mention. The savage, whether Teuton or Red Indian, has no love for persistent toil; and a thousand years of Greek and Roman civilisation had resulted only in making it still more repulsive and disgraceful. But the monasteries in the earlier Middle Ages were "Christian industrial colonies."[27] They were living examples to the barbarians around them, showing forth the dignity and grandeur of honest toil.[28] Even great prelates might often be seen laboring in the harvest fields; and whenever a monastery was erected, there agriculture and other useful arts began to flourish. Thus the first great step in the regeneration of Europe was taken.

But without lingering over these familiar facts let us go on to look a little more closely at the foundations on which labor was thus lifted up by the Western monks. For as in all human structures, even the noblest, there was a touch of imperfection here. We see traces of it in St. Augustine where he extols manual labor as holy because it does such violence to the natural inclination of the flesh.[29]

Thus the dignity of labor is founded upon asceticism—the duty to "mortify" the body. True, the early Benedictine monks did not go very far in this direction; they were willing enough to obey the maxim of their founder: "Be moderate in all things and consider human weakness."

But as the centuries rolled on, the ascetic fever increased. In the eleventh century the order of Cistercian monks was founded. Their rule was seven hours of manual labor, seven for prayer, two for study; a single meal, consisting of two vegetables and some fruit; for clothing the poorest and thinnest even in wintry climes. In the twelfth century 22,000 men became Cistercians, seeking to find "under this terrible rule, a yoke heavy enough to overcome their too passionate natures. "Above all there was an intense desire among members of the ruling class to join "by sharing their sufferings the ranks of those who ate black bread in the sweat of their brows." Even before the order was founded "knights had been seen disguising themselves in the garb of poor wretches and living among the poor peasants by some hard manual occupation." [30]

All that is magnificent: and evidently it was an ideal specially fitted to act upon the rude, wild life of the Middle Ages with incomparable power. But, although it seems ungracious here, I must insist that it was not the highest ideal; it could not withstand the logic of facts and advancing culture; therefore it was destined to pass away. For true self-sacrifice is not self-torture nor any ascetic striving

for one's own salvation; it is simple, voluntary effort for the sake of another. That and that alone gives the full idea of a true cause and so makes a philosophy of history possible.

The Nobility of Service. Labor was also exalted in the Middle Ages by the growing apprehension that service was inherently noble. Even great feudal lords esteemed it an honor to render the most menial service to their superior; in England, for example, the king's "dish-thegns," his "horse-thegns," etc., were the highest dignitaries in the land. Nor can I believe with Freeman that this indicates merely the growing grandeur of kingship. Feudal royalty was but an empty shadow compared with that of imperial Rome, but nothing of this sort appears among the Romans. Moreover this dignity of service was felt not only in kings' courts but everywhere in mediæval society; it is the grain of gold in the dross of chivalry. And it must have tended to lend dignity to manual labor, which above all else really serves mankind.

Extinction of Slavery. The history of the servile classes in the Middle Ages is such an immense mass of differing, indigested details, and there are so many conflicting opinions concerning it, that an attempt to consider it within a page or two may seem absurd. And yet it seems to me that from our present point of view we are furnished with an insight that brings order into even this chaos.

The empire before its fall had virtually reduced the entire rural population to slavery: the difference,

says a French historian, "between the lot of the colon and that of the slave was chiefly theoretical." [31] Once, German writers loved to imagine that the extinction of this universal slavery was due to some peculiar passion for liberty innate in Germanic blood. But that theory is no longer tenable. Abundant facts prove that the influence of the Conquest was retrograde; it arrested that slight amelioration of Roman slavery which Christian emperors had made.[32] To the Anglo-Saxon,[33] the Frank,[34] the Northern barbarians in general, as their laws show, the slave was no more than a beast of burden to be treated like other cattle.[35] And we are told that the colons or serfs lost even their theoretic distinction from slaves and were reduced to strict slavery by the German invaders.[36]

But after the conversion of the conquerors there was a slow, silent uplifting of the servile classes. What confuses modern critics is that there was in this movement nothing modern—hardly a trace of "the ethical sentiment for freedom," no proclamation of emancipation, nothing spectacular.[37] The Middle Ages had no burning zeal for liberty. The Christian Fathers taught that slavery was "a legitimate and useful institution." St. Augustine even said that the Hebrew precedent of emancipation every seventh year had been virtually revoked by St. Paul.[38] The schoolmen as usual adhered generally to the patristic view. It is said that the slaves in the monasteries were the very last to be emancipated.[39] Of all landlords, the religious houses were

"not the most oppressive but the most tenacious of their rights; they were bent upon maintaining villein tenures and personal villenage." [40]

There was then very little of that "ethical sentiment for freedom" which—if we may judge from the history of Greece, Rome and America—seems always to go hand in hand with a vast increase of slavery in its most villainous forms. Instead of that, there went on this slow, silent, mysterious uplift of the servile classes like that of mountains from the sea. The first notable sign of it is given in what one writer calls the "Magna Charta" of the enslaved—a provision in the Alemannic Code of A.D. 622, prohibiting any master from exacting more than three days' labor in one week from his slave.[41] Later on we find that the serf in France who formerly could be moved about at the will of his lord from place to place on some great domain, has acquired a fixed home and an adjacent plot of ground which *he holds as his inheritance.* And so one by one, other shackles dropped from the limbs of labor. And throughout this gradual liberation the impelling principle was precisely the same as that which had produced the feudal, the commercial and social life of the Middle Ages—the restriction and minimizing of rights. Men no longer had unconditional rights to a piece of land, to loan their money at interest, to put a price upon a loaf of bread. How could they be expected to retain such rights over human flesh and blood?

My confidence in this conclusion is strengthened

by the fact that a distinguished French scholar without any philosophic theory to support, but after long, patient study of the question in all its details has reached the same result. The extinction of mediæval slavery, he says, was due to the renunciation of rights.[42]

One other fact must be noted. It is conceded that during the fourteenth century servile tenures were rapidly becoming obsolete. But in the next century a change took place for the worse. As mediævalism decayed, commercialism grew rampant: in Germany especially great trading corporations were formed which monopolized the main necessaries of life; prices rose rapidly; above all there began that tightening of the bonds of serfdom which was to continue for more than three centuries. And the German people with a wise instinct saw in the new Roman code of law then being introduced by the princes, the chief source of their troubles. That law knew nothing of free peasants or tenants in the German sense of the term; "it recognised only autocrats and slaves." [43] It set aside the old customs and unwritten law; for it held nothing valid that could not be sustained by documentary evidence. It "looked on all German leases as limited and applied the Roman slave-law to the German manor rights." [44] Thus legal authority was given not only to deprive the peasants of their communal rights, but to evict them from their life-lease possessions and to increase their taxes.

In fine, the mediæval emphasis upon causality

taught men their mutual dependence, it wove around the high and the low a network of reciprocal obligations. To that extent it favored the weak and curbed the individualism of savagery. It was, to be sure, a one-sided and therefore defective impulse. Nevertheless to it the laboring classes were indebted for their uplift from Roman slavery to the free communal life of the peasant in the fourteenth century.

IV. *Exaltation through Industrial Unity*

We have seen then that in many different ways the Middle Ages strove to raise the laborer out of his pristine condition of bondage and degradation. But we have still to note the mightiest of all the agencies employed for that purpose—the creation of industrial unity.

The East and the West. And here also that close parallelism which we have discovered at almost every point between the development of the Middle Ages and that of India is again disclosed. Just as India through her caste-system had developed among her toilers that wondrous skill which made her the workshop of the ancient world, so Western Europe sought to organize its industry.

There was one vast difference, however. India made her castes hereditary, and so greatly augmented the tyranny of nature over the human spirit. That was the worst, perhaps, of all those exaggerations of a one-sided, imperfect impulse which

finally wrought her ruin. From such exaggerations the Middle Ages were saved by that fundamental and beneficent law of Christianity whereby the dominant impulse is always being enfeebled by the counter-impulse.

Agricultural Communities. The triumph of the unifying impulse is shown in the communal life of the rural laborers. Some indeed speak scornfully of the village communities as archaic institutions. But one of the chief secrets of progress is to preserve whatsoever in the past can be adapted to the needs of the present or the future. And that the Middle Ages did. They left out in large degree the features of slavery visible in the old Pagan times,[45] but they retained "the ideas of communal ownership and *equalized* individual rights." [46] The village acts as an organized community; it evidently has free disposition as to rights connected with the soil; it disposes of those rights independently of the lord.[47] The villagers elect their own officers and conduct their own affairs. Arrayed thus against the lord as a group and not as single individuals they have a strong tower of defense. In fine, the lords seem to have little more than "the semblance of ownership."[48]

In Germany in the closing century of the Middle Ages the peasants seem still freer. They settled their grievances in their own tribunals and were protected by the ancient law. They stood up in defense of their ancient rights and privileges and armed themselves against the foreign code and its accompanying growth of princely despotism and,

above all, against the revival of bond-servitude once destroyed * * * but which now threatened to be re-established.[49]

The Guild System. Still more complete was the organization of labor effected through the guilds of the artisans. Roman law, as we have seen, fostered the combinations of capital but was bitterly hostile to the humble brotherhoods of toil. But mediævalism exactly reversed this policy. By its usury laws and other restrictions it rendered large combinations of capital almost impossible; and on the other hand it permitted and encouraged the organization of labor. It was a transformation complete and most beneficent.

The labor-leagues and associations, writes an old chronicler,[50] are formed to the end that the whole life of the members may be ordered according to Christian discipline and love and the work itself be consecrated. This consecration of labor was the keynote of the entire guild system. Every brotherhood insisted upon the sacredness of its own art, and constantly taught that "the highest reward of industry lies in each one's inner soul."

Still the guild brethren did not by any means neglect their more earthly interests. They insisted upon fair wages. The guilds of Florence really ruled the city, and they forbade a manufacturer to discharge a workman except for grave reasons to be stated to the council of the guild;[51] landlords were not even permitted to raise rents except by a like permission. Our modern "sweating" system

was then impossible; for industrial work was forbidden in private houses.[52] Overtime also was strictly prohibited: the great bell of Santa Maria rang at 3 P.M. all the year round; and when it sounded, the day's work in Florence was done.[53]

The Law and the Guilds. Roman law fiercely opposed the industrial unions. Modern law, until the nineteenth century, crushed them; then it waged war against them; quite recently it has come to a position of "armed neutrality." But mediæval law not only gave the brotherhoods of toil its good will and hearty encouragement; it even surrendered to them some of its own chief functions. The supervision of trade and industry, the regulation of prices, the prevention of frauds, police jurisdiction and even the administration of justice up to a certain point—all these were largely entrusted to the guilds. In the end the most progressive of the free cities—Florence, for example—became little more than a confederation of guilds, each craft becoming responsible for its own membership and all, theoretically at least, working together for the common good.[54] They were so strong that even when "the central government was totally suppressed for a time, no great harm seemed to result from its loss."[55]

Mining Unions. A striking contrast between the mediæval and the modern way is exhibited in the mining industries of Germany which in the fifteenth century were very extensive. In 1471 rich mines were discovered in Saxony and later in Bohemia. Eight thousand miners are said to have been em-

ployed; great mining towns sprang up as if by enchantment. In rapidity of growth they were like our own Western mining towns, but otherwise different. For "owing to wise and energetic legislation for communal life in these 'mushroom' cities and by the introduction of the guild system among the mining population a well-organized state of things was brought about in a comparatively short time in these new industrial marts." [56]

Federation of Labor. The German tradesmen prided themselves on being members of one huge corporate body which gathered into itself all the separate brotherhoods of the different trades. Although there was no written constitution there grew up, nevertheless, out of this amalgamated community of interests and labor a common code of industrial law for all the countries of the empire. Members could make themselves known by the society's badge or password all over the world—in France, Italy, * * * wherever the German guilds existed." [57]

Thus the guilds brought the incalculable power of organization to the aid of labor. They secured fair wages to the workingman: the average earnings of a woolen-worker in Florence were larger than the salary paid to a man sent by a Florentine firm to manage a bank for them at London. The guilds exalted the dignity of toil by training the toiler to take a religious pride in good, honest work; they shielded him from the rapacity of the strong and from the evils of industrial strife or competition.

They brought religion, that mightiest of all mediæval forces, to his aid; for the guild was essentially a religious institution; and whenever an industrial group felt itself oppressed, it organized a new brotherhood—as its enemies alleged—"under the feigned colour of sanctity." [58]

The guilds also helped mightily to extirpate serfdom; the villein who fled to a town, entered a craft guild and practised his trade for a year and a day was forever free.[59] The towns gloried in thus being the sanctuaries of freedom; the burghers of Spires had it graven in letters of gold upon the main door of their cathedral; and the commune of St. Quentin solemnly enacted: "The gate is open to all; and if the seigneur has unjustly detained the fugitive's property * * * we will execute justice."[60]

Through all these sources labor received a vast access of dignity. "God and the laborer," said a representative theologian of the later Middle Ages, "are the true lords of all that helps mankind: all others are merely distributors or beggars." [61]

NOTES

[1] *De Civ. Dei.* XIX. 15.

[2] Gregory VIII, *Ep.* VIII. 21. Cf. Barker, *Political Thought of Plato and Aristotle,* 456. Jenks, *Law and Politics in Middle Ages,* 98. Jenks' proofs are convincing, but cannot be given here.

[3] Laboulaye, *Du Droit de Propriêté fonciere en Occident,* 258. "Quand la revolution fut accomplie et que la terre fut la noblesse et la grandeur, ce fut la systeme foedal."

[4] Stubbs, *Constitutional History of England.*

[5] Albert, *De Causis et Processu Universi, lib.* II. *tr.* IV. *cp.* 14.

[6] *Ibid,* cap. 2.

[7] Maine, *Early History of Institutions,* 82.

[8] Elphinstone, *Hist. India,* I. 131.

[9] Tod, *Feudal System in India, J. R. A. Soc., N. S.,* Vol. 5, p. 41.

where many authorities are quoted. Maine, however, rightly maintains that the feudalism of India was never completed. *Village Communities,* 153.

[10] Gobineau, *Hist. des Perses,* I. 575.

[11] Pollock and Maitland, *History of English Law,* I. 211-12.

[12] Pastor, *Hist. Popes,* II. 277. The great political unity of the Middle Ages was broken, etc. Also Jannsen, *German People,* II. 189-264: on the failure to reform the empire.

[13] Ashley, *Eng. Econ. History.*

[14] Nourrison, *Philosophie de St. Augustin,* II. 402.

[15] Pollock and Maitland, *Hist. English Law,* II. 40. "Thus our law of the 13th century seems to recognise in its practical working the relativity of ownership."

[16] Jannsen, *Hist. German People,* II. 96-7.

[17] Gibbon, *Roman Empire,* IV. 496, *Note:* for example.

[18] Jannsen, *Hist. German People,* II. 74.

[19] *Book* II. *Chap.* I. *Sec.* 1.

[20] Finlay. *Hist. Greece,* V.

[21] Green, *Town Life in 15th Century,* II. 35 *seq.*

[22] Jannsen, *Hist. German People,* II. 103.

[23] Green, *Town Life in the 15th Century,* II. 15 and 202-3.

[24] Lamprecht, *Deutsche Geschichte,* IV. 214. Cf. Munro and Sellery, *Medieval Civilisation,* 363.

[25] Luchaire, *Les Communes francaises,* 140.

[26] *Ibid,* 143.

[27] Cunningham, *Western Civilisation,* 35.

[28] Levasseur, *Hist. d. Classes ouvriéres,* 135 *et* 149.

[29] *De Opere Monachorum,* XXVII.

[30] Garreau, *L'Etat social. d. la France,* in Munro and Sellery, *Medieval Civilisation,* 154-5.

[31] Lavisse, *Histoire de France,* Vol. I. part. II. p. In Munro and Sellery, 29. Adams (*Civilisation during the Middle Ages,* 307) says that at the end of the Empire the slave had been "transformed into the serf. But that is plainly incorrect.

[32] Wallon, *Esclavage dans l'Antiquitê,* III. 413 *seq.*

[33] Sharon Turner, *Hist. Anglo-Saxons,* III.

[34] Yanoski, *Abolition d'Esclavage ancien,* 8.

[35] *Leges Wallicae,* III. *cp.* 2. "Hero enim eadem potestas in servum, ac in jumentum."

[36] *Edich. Theodos,* 142: cf. Yanoski, 32. Also on Anglo-Saxons see Seebohm, *The English Village Community,* 176 *seq.*

[37] Except the Italian cities which emancipated their serfs with a grand flourish of trumpets and Stoic phraseology, Villari, *Hist. Florence.*

[38] Carlyle, *Hist. Med. Political Theory in the West,* I. 123.

[39] Westermarck, *Origin and Development of Moral Ideas,* I. 697. Also Lecky, *E. Morals.*

[40] Pollock and Maitland, *Hist. Eng. Law,* I. 361. Also Green, *Town Life,* I. 279-94.

[41] Seebohm, *English Village Community,* 404. This had been the eccles-

astical custom. "Et si super haec est. sicut servi ecclesiastici ita faciunt, etc."

[42] Chevanne, *Hist. de Classes agricoles en France,* 68. "Il n'etoit qu'une renunciation du maistre des droits determines."

[43] Jannsen, *Hist. Ger. People,* II. 183. Also, 104-182.

[44] *Ibid,* 183.

[45] Pollock and Maitland, *Hist. Eng. Law,* 404. Bracton insists upon relativity of serfdom, 3981.

[46] Vinogradoff, *Villainage in England,* 238.

[47] *Ibid,* p. 359.

[48] *Ibid,* p. 409.

[49] Jannsen, *Hist. German People,* II. 290.

[50] Quoted by Henderson, *Hist. Germany,* I. 185.

[51] Staley, *The Guilds of Florence,* 153.

[52] *Ibid,* 153.

[53] *Ibid,* 73.

[54] Villari, *Hist. Florence,* 127. "Thus the Florentine communes resembled a confederation of Trade Guilds and societies of the Towers . . . if no election took place the companies were provisionally empowered to act in their stead."

[55] *Ibid,* 546.

[56] Jannsen, *Hist. Ger. People,* II. 39.

[57] *Ibid,* 19 and 25.

[58] Green, *Town Life in 15th Century,* II. 124-7.

[59] The English law was much more liberal; if the serf fled, he had to be reclaimed within four days, or not at all. Pollock and Maitland, *Hist. Eng. Law,* II. 404.

[60] Thierry, *Tiers Etat,* II. 100.

[61] Langenstein; cf. Roscher, *Gesch. d. Nat. ökonomik in Deutschland,* 8.

BOOK IV

MODERN CIVILISATION

CHAPTER I

PROTESTANT RELIGION

I. *Dependence upon the Infinite*

At the close of the fifteenth century mediævalism had evidently accomplished its mission. Farther development in that direction meant only Oriental torpor, stagnation and decay. But Christianity was true to its distinctive and fundamental law of regeneration. A new work of transformation began. The counter-impulse—engrossed with sensible results, practical, questioning—which the Middle Ages had checked, now sprang into fullness of life.

But let us guard against an ancient error culminating in Hegelism. The later epoch is not the negation of the former: cause and effect are not contradictory but complementary. The contrast between the two epochs is simply a difference of emphasis: what one puts first, the other makes secondary, and conversely.

Calvinism. Coming now to note the chief features of the new movement we are at once confronted by its most enigmatic characteristic—its strange blending of fatalism with great zeal for liberty. The Calvinists struggled against external

tyranny and gloried in inner slavery. Mediævalism on the contrary bowed humbly before outer despotism but clung to its faith in the freedom of the soul.

But the seeming enigma is, after all, but another proof of our theory. Calvinism is really *a lowering of faith in infinite causality*. For as I have shown, no logically complete and uncontradictory conception of an infinite cause is possible except as a self-sacrificing, loving cause. But Calvinism has taken out that element—the very heart of the conception; its God is mere arbitrary will or power: in fine, it has logically nothing left but a mere negation, the empty, abstract Infinite.

This is still more fully shown if we go back to St. Augustine, the inventor of the Calvinistic scheme. For St. Augustine expressly declared "that the expression 'mercy' had only figurative meaning when predicated of God, because it implies suffering through the suffering of others." Nevertheless he believed himself justified in using it "in order to save the souls of the unlearned from stumbling." Thus Augustine fell lower than even the Indian Upanishads, for they somehow kept the faith that man was master of his own destiny.

The orthodox schoolmen rejected Augustine's view of this matter and maintained the freedom of the will. And there is a very notable expression used by Thomas Aquinas in discussing this figurative character of the predicates applied to God. There is a more intimate likeness than in common analogies, " which rests on a causal relation." He is

not very clear but evidently has a glimpse of the great truth that the concept of causality can be fully understood *only* when it is applied to God.

We seem then to have good ground for asserting that Calvinism involved a distinct lowering of faith in the Infinite Cause. Secondly, it also shows increased engrossment with results; for to the Calvinist everything converges upon the one question: Who are elect and who reprobated? Thirdly, the utility or "value" of the doctrine in developing the militant virtues is evident not only in Dutch and English but in Mahometan history. Finally, this engrossment with sensible results is printed upon the very face of a dogma which taught men to be so zealous about external liberties and so unconcerned about the freedom of the soul.

Spinoza. But Calvinism is extinct, or at least a faint survival. My reason for dwelling upon it specially is that it was the first phase in a serial movement marked by a continual lowering of the conception of the Infinite down to the zero-point. And the curious fact that each phase occupies just about a century gives our induction almost a mathematical flavor.

The first phase, as already said, was Calvinism; but it was impossible for human reason, after it had once begun to inquire for itself, to abide by such a doctrine as that. And so we see European thought in its struggle to escape the difficulties and seeming paradoxes involved in the conception of the Infinite, taking exactly the same path which had

been taken by Indian thought more than two thousand years before. That path was through the doctrine of Maya or illusionism; the Infinite alone was real; things finite, sorrow and sin were but a dream. But this doctrine was too distasteful to practical, realistic Europe to be accepted except by piecemeal—so to speak, in two doses. Hence came Spinozism, which surrenders time *but not space* as illusive. Extension is as real as thought; all difficulties vanish, according to Spinoza, when we discard time and regard the spatial universe *sub specie aeternitatis.*

But note that Spinozism must not be confined to the little handful who openly accepted it under that name. The spirit of the system was far more pervasive than the ordinary historian of philosophy imagines. Thus Jonathan Edwards, the greatest metaphysical genius of America, had wrought out for himself in his lonely life among the savages a kind of Spinozism with which he tempers the orthodox Calvinism.[1] The so-called English Platonists were also equally Spinozistic. For, is it not the very essence of Platonism that finite things exist only through some inexplicable "participation" in their eternal—that is timeless forms or ideas?

Kantianism. But this second or Spinozistic phase was but a compromise, a half-way house. In the third or Kantian phase we have the full, unqualified return to India's ancient doctrine of Maya. Space as well as time, is but a form of thought. The finite is known, but unreal; the infinite is real

but unknowable. In this doctrine, however, I have only an antiquarian interest as a curious survival; and I desire to pass on to the fourth and final phase of this ever lowering conception of the infinite.

Atheism. In a recent work by a well-known and very able Hegelian commentator [2] this final phase is brought fully to light. The evasiveness and ambiguity of Hegel are discarded; instead thereof we have an open and manly argument against the belief in an omnipotent God. All the chief objections that have been urged since the era of the Upanishads at least, are presented with skill and power. And yet it seems to me possible to exhibit —in a few words easily understood and remembered—the one great fallacy which vitiates all his arguments.

That fallacy consists in this: *The true Infinite is divided into a number of empty abstractions, conceived as real entities, described as infinite and thus made to contradict each other.*

Immutability. Take now one of our author's two main arguments—and Kant's favorite one—that based upon the changelessness of God. "How can that which is changeless be the sole cause of any event?" I answer that God's changlessness must be conceived as *relative to the other divine attributes:* He began His creative work at a particular period of time because he had so planned from all eternity, and this unvarying adherence to his own eternal councils is what theism and common sense mean by immutability. But Kant and Mac-

Taggart are bewildered by some vague view of an *absolute* changelessness, which would of course make all other attributes impossible and reduce God to zero; but to this view I have what seems to me a most conclusive objection as follows:

An absolute attribute is a self-evident absurdity, a plain contradiction in terms. For, the very essence of an attribute is to be relative to the substance to which it belongs and thus to the other attributes of that substance.

Omnipotence. But undoubtedly the most forcible objection to theism is that based upon the existence of evil. And to it, I think, no fully satisfactory answer has ever been given. Even if it had been proved that the good preponderated over the evil in the world, a doubt would seem to still hang over either God's omnipotence or His love. Nor can we escape through the doctrine of human freedom; for, the psychological evidence therefor can hardly be pronounced incontrovertible.

From this downward path, then, there seems no way of escape except the one outlined in these pages. Mankind must come to know that the one central attribute of the Infinite—the one controlling and unifying all others—is his self-sacrificing love. Thereby the conception of God's power is not lowered but immensely exalted; for, through this self-abnegation this voluntary limitation of His power for the sake of others, mere physical or intellectual power is lifted to its summit as *moral* power.

Nor have we left this conception a mere hypothesis

very alluring *if* only it could be verified. We have verified it. We have shown, first that the concept of causality is indispensable in all thinking processes, cancel it and all thought is extinct. Secondly, no idea of a *complete* cause is possible except that given in the idea of the self-sacrificing Infinite. Therefore the cancelling of the idea of the self-sacrificing Infinite leads logically to the cancelling of all thinking whatsoever—that is, to the extinction of thought.

I believe that to be a full, indefectible demonstration of God's existence. It is a more complete *reductio ad absurdum* than any in geometry; for the geometer merely proves that the negation of his theorem leads logically to the negation of some universally accepted principle; but I have proved that the negation of God's existence leads logically to the negation of all principles whatever—to the collapse of the whole thinking process.

II. *Justification by Faith*

The Protestant age, then, evinces an ever-decreasing sense of dependence upon the Infinite. Still more vividly the tendency to transfer the emphasis from causality to its results is displayed in what is avowedly the central Protestant dogma—justification by faith.

To be justified or acquitted, to have the righteousness of another imputed to us, to be vicariously punished—that such ideas should be magnified as

they were in Protestant theology certainly betrays a strange engrossment with results. The fundamental principles of religion and morality are left in the background, the interest of the believer is wholly centred upon the question: How shall it fare with us in futurity?

Doubtless there was a certain regenerating power in this dogma. Mediævalism had collapsed and there was need of sweeping away the debris. The new emphasis upon justification by faith did that work; it taught men to rely upon themselves rather than upon the priests, quickened human energies, curbed superstition, brought other benefits too numerous and too well known to be recounted here.

Nevertheless it was but mere engrossment with results. From the very start it was tainted with the same commercialism that characterised Greek and Roman religion; it would dispense with all priestly intermediaries and obtain its desired results at the least possible cost. Mediæval theocracy, in its final stages, proved to be a very costly bargain. "It was reckoned that nearly a third of the whole landed property of the country was in the hands of the church. * * * In many towns the church buildings and other institutions covered the greater part of the ground."[3] No wonder then that economic motives played a considerable part in the programme of the Reformation. It is slanderous, however, to say, as some have, that they played the main part.

But my thesis that there has been an ever increasing engrossment with the result—justifying or ac-

quittal—is proved by the palpable fact that through the past four centuries there has been a continuous degradation of the means or secondary causes employed for the attaining of the desired result. Christ said: "If ye forgive men their trespasses, your heavenly Father will also forgive you." From that sublime height what a descent it is to the modern view that divine forgiveness can be secured by hysterics, a spasm of fear, the clap-trap of the "revivalist"!

III. *The Hope of Immortality*

Coming now to another wilderness of controversy, I must confine myself, as usual, to what is absolutely essential. And the essential thing here is to rightly distinguish between faith and hope as related to immortality.

Faith. The mediæval belief in immortality had its origin in emphasis upon causality—in the all-embracing sense of dependence upon the Infinite. Thus the conviction of immortality formed are integral part of the Catholic system, but only a minor and subordinate part. All its strength lay in this unity of the faith; by itself, resting only upon its own evidence faith in future existence would have been weaker than a hand or foot torn from the body.

But in this modern age the belief in immortality —very potent in the first centuries after the Reformation—has gradually fallen to pieces because it does not rest upon any firm abiding conviction con-

cerning the Infinite Cause. Christian theism seems to be sharing the fate of classical mythology. Wherever still retained, it is accepted apparently as an affair of blind faith, of irrational choice, of "the will to believe" or some other pitiful form of obscurantism; even professors in orthodox colleges now teach that the chief evidence for its truth consists in its "value" or utility.[4] Under such conditions immortality inevitably fades into a dim dying hope: it is literally "a castle in the air."

But the new age now swiftly approaching will glow with a new vigor, not of blind faith, but of knowledge. "*To know God,*" Christ said, "is eternal life." And there will be no further excuse for this modern sophistry unless some one can find a flaw in my demonstration that the negation of the Infinite, self-sacrificing Cause logically involves the extinction of all thinking.

NOTES

[1] Leslie Stephen, *Hours in a Library,* I. 329. "He is a kind of Spinoza-Mather."
[2] McTaggart, *Some Dogmas of Religion.*
[3] Jannsen, *Hist. German People,* II. 295.
[4] For example, Armstrong, *Transitional Eras in Thought,* 283-5.

CHAPTER II

MODERN MORALITY

I. *The Basis of Morality*

We have pointed out the glory and the defect of mediæval morality. Its glory was that it laid a broad, sure basis of moral obligation in the will of the Infinite Cause who had sacrificed something of His own power in order that man might be free and thus to a certain extent like Himself. Its defect lay in a too ascetic standard or code; it did not give proper prominence to those virtues that were most useful and magnified some of little value: it emphasized the cause or ground of morality and neglected its results.

The modern era has exactly reversed the mediæval procedure. It has worked out a more rational code of morals, but at the same time it has undermined the basis of moral obligation. Let me try first to prove the latter clause of this proposition.

The Freedom of the Will. Several agencies have combined in this undermining process, but I confine myself to one that in a measure comprehends the rest and which showed itself boldly at the very

dawn of the Reformation—the denial of human freedom.

Despite the seeming audacity of attempting a task which never yet has been accomplished, I seek here to demonstrate the fact of man's moral freedom. But in order to escape that tempest of rhetoric and sophistry that rises whenever the question of freedom is presented two or three preliminary considerations are needful.

The Finite Cause. The Infinite alone is absolutely free, that is, able to act unaided and unaffected by aught else. Our moral activity is affected by physical influences—a grain or two of morphine for instance—by inborn dispositions and acquired habits. The wise advocate of freedom therefore affirms nothing but finite or responsible causality. Man despite all his disabilities is endowed with a power of initiative and control which makes him not the complete, not the sole, but the *responsible* cause of his conduct.

That insight shuts off the irrelevancies about moral statistics, the partial predictibility of conduct, etc., with which determinists love to bewilder themselves and others.

Note too that we use the word "responsible" in its proper ethical sense. It is a pitiful evasion, although now very much in vogue, which speaks of man as being responsible in the sense that an apple is responsible for its rottenness or a tiger for his blood-thirstiness.

The Uniformity of Physical Processes. Another

chief fallacy of determinism comes from the failure to comprehend that the belief in the invariability of physical processes is *not* "an intuition" or a necessary "form of thought," but a scientific induction established and verified only in the last century or two. Therefore to extend this induction from physical over all psychical processes is sheer assumption. It is also utterly unscientific. For true science never extends an induction from one kind of phenomena to another kind without giving good reasons therefor. But such reasons the determinists have not even seriously attempted to give. And considering the contrast—complete at every point—between the physical and the psychical what can be more absurd than to claim off-hand that whatever is true of the one *must* be true of the others?

The Law of Causality. But it may be asked: Was there not prior to this scientific induction, a primitive, universal conviction that "every change must have a cause"? Undoubtedly there was. But the origin of this conviction is very plain. For, a change—a motion for example—is an *abstraction;* it has no independent existence apart from some moving thing. Being dependent it is an effect and therefore must have a cause. To see that we need no mysterious "intuition," but only the ability to comprehend that a change is an abstraction.

But the uniformity of all physical causation is quite another matter. It is a recent induction and, as we have just seen, cannot legitimately be extended beyond the physical realm. It is as distinct

from the principle described in the previous paragraph as black is from white. But the determinist confounds them, mixes them pell-mell together, and then begins to declaim about what he calls "the law of causality."

The Positive Proof of Moral Freedom. These preliminary considerations then show that determinism is mere rhetoric devoid of all logical proofs. But is there any positive proof of freedom? Unmistakably there is. From our present point of view the proof is so plain and simple that it may be written almost on one's thumb-nail.

If man is not free, God within the range of human experience has sacrificed—surrendered nothing of His own power for the sake of others. Thus for man the idea of a full, true cause is made inconceivable; and with that, as we have repeatedly shown, all thinking is rendered logically impossible.

The course of modern ethic then has been precisely parallel to that of modern religion. It has tended to subvert the very basis of morality, the belief in moral freedom. The same deadened sense of causality has impaired faith in both the Infinite and the finite or human cause. Thus the basis of morality has been completely undermined. But let us turn to a less gloomy aspect of the modern ethical movement.

II. *The Standard of Morality*

The word utilitarianism has to many a very evil sound. And so when I maintain that the modern

era has been ruled throughout by the utilitarian tendency, it may seem like a silly libel upon four splendid centuries that have done far more for human progress than any other four known to history. But there is no note of scorn in my characterization. Utilitarianism—engrossment with results—was a beneficent, a regenerative power in Western Europe until at the close of the eighteenth century it had become so exaggerated and one-sided as to forget God and undermine the basis of morality.

Historic Evidence. The history of those centuries shows upon its very face the magic power there was in this new utilitarian tendency. Some writers have even maintained that the mercenary instinct was the main-spring of the Reformation.[1] "If masses were made free by Act of Parliament," it was said,[2] "there wold be few to say that there was no Purgatory." But that is unjust to the early reformers, the Dutch Calvinists, the Huguenots, the Puritans of old, and New England who sacrificed so much for conscience, for liberty for nobler causes than the greed of gain. The utilitarian tendency has other and better manifestations than mere mercenariness and all of them had their share in the Reformation work.

The truth is that asceticism at the close of the Middle Ages was an exhausted function. Absorbed in theological issues depreciating the practical demands of life, it had no further promise. Then the counter-impulse began its reign, the ethic which

idealized the useful and despised the dreamer. And this new spirit, intent upon practical results, self-reliant, thrifty, eager for prosperity on earth as well as beyond the skies entered upon a vast work of regeneration. It broke the spell of the old asceticism, the adoration of poverty and pain, the nightmare that was benumbing almost all human capacities except the capacity for suffering. The new ethical movement awakened human energies before undreamed of. It opened up the New World, dissipated illusions, ushered in the light of science, brought the sweet morning-air of liberty.

Utilitarianism then is an essential factor in every sound moral code. Just as physical laws are verified only by observation of physical results, so moral laws are verified only by observation of social results.

Modern Mercenariness. But here again we are confronted by that fatal fact of one-sidedness and exaggeration which we have found in every period and phase of human history. The same impulse which substituted a rational pursuit of utility for the useless asceticism of the Middle Ages tended also—as we have shown in the preceding section—to undermine the basis of morality. Furthermore the new spirit of inquiry and enterprise has disclosed such illimitable treasures in the bosom of Nature, that the cupidity of man has been inflamed almost to madness. The immensity of our wealth has brought not contentment and gratitude, but a wild fever of strife and gambling. That explains

why we Americans are considered rightly, I fear, to be greedier of gain than my other people.

But long ago the early Protestants foresaw this danger, and groped for means to check it. Luther for instance, wished to restrict the profits of retail trade to five per cent. and of wholesale trade to one per cent.[3] But that was like King Canute's command to the ocean.

Nevertheless it is incredible that this mercenary period should be perpetual. Indeed, our insight into its origin is also a prophecy of its decline. For we have seen that this reign of avarice is but an incident of the great revolution wrought by the discovery of the physical order of the world. And the downfall of that unhappy reign will be due to that still more splendid revolution that will soon be wrought by the rediscovery of the moral order of the world.

NOTES

[1] Adams, *Civilisation and Decay*, 190 *et al.* One of the main theses of the book.

[2] St. Germain, *Dyalogue*, 23. Cf. Gasquet, *Eve of the Reformation.*

[3] Wiskemann, *Darstellung d. i. Deutschland zur zeit der Reformation herrschenden national-ökon. ansichten*, 54.

CHAPTER III

THE CREATION OF MODERN SCIENCE

I. *The Great Enigma*

Excepting the advent of Christianity, the rise of modern science has exerted, I think, a grander and more beneficent influence upon the fortunes of mankind than any other event in human history. And it seems too one of the most enigmatic of events. Why after so many thousand years of darkness this sudden bound almost from midnight to noonday? The few discoveries made by the genius of Greece, Rome, Alexandria were but so many disconnected meteors; why then in the seventeenth century—an age rotten with bigotry, religious wars and other horrors—did the sun of science burst forth? This problem certainly has never been solved. It has hardly been seriously propounded.

We are indeed often told that the rise of modern science was due to the employment of the inductive method. But unfortunately they do not tell us what the inductive method is; there is no question about which logicians are more hopelessly at variance than that.

Furthermore, I do not believe that the true theory of induction will ever be discovered in the way commonly adopted—that is by inventing a lot of "canons," etc., and then selecting a few facts here and there that happen to fit our guesses. The right way, it seems to me, is the one I am here attempting —viz., to study the history of the sciences, one by one, until we find a clue to the method which the great discoverers have instinctively pursued.

Already our study of the different epochs of history has revealed the dim outlines of such an inductive theory. It seems to show that physical research, to succeed, must combine two factors: first the critical, inquiring spirit which demands strict verification; second, firm faith in the invariability of natural processes. The Greeks had the first but they lacked the last; for them things happened largely by chance, "generally or for the most part," as Aristotle phrases it. The Middle Ages, on the contrary, lacked the first factor but they had the last in high degree: even Positivists like Comte recognise the great gain to science involved in the mediæval conception of the divine unity.[1] It was indeed believed that miracles might occasionally occur, but even that opinion was directly antagonistic to the Greek view that things happened by chance.

Therefore when the Protestant age of criticism and inquiry began it was fully equipped with this heritage from the Middle Ages—the belief in the invariability of all physical processes of causation. And happily this belief was strengthened, not weak-

ened by every new scientific discovery. Such is the theory of induction which I wish to define more precisely and to verify by a brief glance at the history of the sciences.

II. *Descriptive Astronomy*

At the very start of our survey we are met by an error which I think, has done much to obscure the true genesis of science and the real nature of the inductive method. Hence it must be carefully considered.

Copernicus and Modern Idealism. The survivors of the Kantian school of philosophy love to imagine that there is some correspondence between their illusionism and the so-called "distrust of the senses" evinced by the first great scientific discoverers.[2] On the contrary, the two views are completely antagonistic. Copernicus, for example, by no means regards perception as Maya, as "transcendental illusion," as a gigantic imposture forced upon all men by some mysterious fatality of their natures. On the contrary he regards perception simply as an invariable process, always truth-telling but containing within itself many factors, some of which careless thought is apt to overlook and thus is led into error. Even an observant savage knows that the rapid motion of the spectator will make stationary objects seem to move, but it required the genius and the toil of a Copernicus to so apply this principle

to the vast complexity of the heavenly motions so as to disentangle the real from the apparent. So in regard to the earth's seeming immobility; so great and learned an astronomer as Tycho Brahe to the end of his life rejected the Copernican theory mainly for the reason that "the earth was a sluggish body unfit to move,"[3] and many years were to elapse before the science of mechanics was sufficiently developed to show men how the earth's motion might be imperceptible. So difficult was it to comprehend even a process like that of perception which all men were using every moment of their waking hours.

Kepler and Mysticism. The great scientific discovers, then, were not Kantian illusionists. Nevertheless they were idealists in the true sense of the term. Copernicus, for example, was the boldest of free spirits, for forty years an unwearied observer. Yet he clung to the mediæval convictions and expressly based his new doctrines upon the old faith in cosmic unity and harmony.[4] To use a phrase of his own, he looked at the universe "with both eyes"[5]—the outer eye that revealed a chaos of changes and the inner eye that revealed the unseen and changeless.

But Kepler especially has been reviled for his mysticism.[6] It caused the great discoverer, so Comte scornfully asserts, to waste seventeen years over a problem that might otherwise have been readily solved.[7] But Kepler maintained that his mysticism was the light that led him on through

many dark places to his splendid goal. What could be sillier, then, than to sneer at him for having wasted seventeen years in making discoveries which the rest of that Humanity that Comte adored had not been able to make in more than seventeen hundred years?

True idealism or mysticism is best comprehended by distinguishing it from empiricism. For example, such empiricists as Aristotle and the Greeks in general explained the fall of a stone by saying that the stone "seeks its own place"—that is by assuming an analogy between stones and living things. That is empiricism, a way of thinking that knows no unity except that of mere resemblance, analogy, similarity, etc.—a way that reached its summit in the celebrated Hegelian theories about "likeness and difference." Idealism or mysticism, on the contrary, scorns this false unity of resemblance and seeks after the true unity of *dependence*. It does not expect to perceive this dependence as something visible or tangible but as something proved wherever rigid invariability of sequence or co-existence can be discovered: when events or changes follow one another in a mathematically invariable order they must be somehow causally connected, resultants from a common process of causation.

So Kepler led by his mystical faith in that true unity of dependence which binds the universe together, believed that there must be mathematically invariable relations subsisting between the times,

distances and velocities of the planetary bodies. He spent his life in trying to discover these relations. And he found them.

Mechanics. We need not here enter into that labyrinth of questionings, experiments and discussions out of which at last emerged the science of mechanics. Bare inspection of the simple laws of motion finally established shows here precisely the same trend as in all other true scientific movements —to wit, the disclosure of invariable processes so strictly defined that their results can be mathematically computed and compared with observed results. Thus the first law of motion reveals the constituent unit of all such processes—a motion which, if unaffected by new causes would continue forever without change of direction or velocity. And the second law reveals the manner in which such units or factors are combined so as to produce those very complex and ever changing motions known to sense.

Nor need I repeat the familiar story of the way in which the knowledge of these simple laws of motion removed the obstacles that had so long hindered the acceptance of the Copernican theory. Instead let us pass on to the noblest act in the great drama of the scientific movement.

Newton. Newton also was a mystic: an untiring student of Jacob Boehme, a lifelong alchemist devoting much of his time to the occult art,[8] a theorist whose visionary speculations concerning the causes of gravity, for instance, rival the dreams of Kepler.[9] Thus each one in the great astronomic triumvirate

is a witness to the fact that modern science owes its origin to a just blending of the new demand for free inquiry and proof with the mystical, mediæval faith in an infinite, immutable cause.

But because the results achieved by Newton are more fully developed than those achieved by Kepler and Copernicus, therefore the mystical element is more transparent in the former than the latter. In fact the Newtonian theory of gravitation is the perfect pattern of what is less clearly presented in every other scientific induction. To use again an example already given take the case of a falling stone. Here we have an effect of a literally inconceivable complexity and changefulness, a motion that at every infinitesimal instant is changing both its velocity and its direction. And yet it is the product of an absolutely invariable process of causation.

The same statement applies manifestly just as well to every other fact falling under the Newtonian theory, confessedly the most comprehensive induction that man has framed. So I cannot be accused, as so many philosophers have justly been, of inventing a scheme and then selecting a few scattered facts to support it. Furthermore, I stand ready whenever challenged to prove the same concerning any other real induction.

It may be objected that what I call a process of causation is merely a law. That I deny. A law in physics is a mere metaphor; one too that suggests the false and hides what is true and most essential in a natural process.

III. *Physics*

Of the different branches of physics I shall consider two that show with special clearness the chief obstacles to the creation of science.

Acoustics. Aristotle and the Greeks in general recognised vaguely that sound was not a substance travelling through the air but was somehow the resultant of the air's motions. And Vitruvius had gone so far as to liken these atmospheric motions to the *waves* caused by dropping a stone into still water. Thus even the earliest inquirers had a glimpse of the ultimate generalization of acoustics —the theory of undulations. But nothing came of this view, because it lacked the one distinctive feature of scientific induction—mathematical exactitude or verifiableness. It was but a conjecture, undefined, having no known support except the omnipresent fallacy of resemblance.

Thus it remained for almost two thousand years, until Newton began his researches. With consummate skill and toil he searches out the various factors in this undulatory process, and from these known conditions he is able to calculate what ought to be the precise velocity of sound. But still his induction is fatally defective; it cannot be verified: the calculated velocity is 174 feet per second less than the actually observed rate. And so for one hundred and twenty-eight years more, the nascent science was in the limbo of dispute and uncertainty.[10]

At last, in 1816, La Place showed that there was

in this undulatory process *a neglected factor.* By this sudden compression of the air heat is generated and thus the air's motion is greatly increased. And when due allowance was made for this neglected factor, the calculated and the observed results were found to precisely correspond; and acoustics became a science.

The whole genesis of science is epitomized, I think, at least in one of its aspects, in this glance at the origin of acoustics.

Optics. The creation of the science of light was long delayed by what seems a different obstacle but really one closely cognate with that just noted. Even the Alexandrians seem to have instinctively felt that the key to optical science lay in the property of refraction. But this property hides under one name a myriad of variations among which they vainly sought to find any definite relation; Ptolemy, for instance, imagined that the angles of incidence and refraction were proportional to each other. The Arabians refuted this opinion, but without finding the true formula. In modern times even the genius of Kepler was baffled in its attempts to solve the problem. But at last in 1622, Snell discovered the true law—"the ratio of the *sines* of the angles of incidence and refraction are constant for the same medium."

It is a disgrace to philosophy and science that Descartes having had access to Snell's papers published the latter's solution as his own, and so robbed a great discoverer of his rightful fame.[11] The

thief, however, made excellent use of his stolen goods. With Snell's formula, he was enabled to calculate the laws of the rainbow, that beautiful mystery upon which all ages had gazed with admiring wonder. At least Descartes explained the narrow band of light, its position in the sky, its diameter, the secondary bow, everything but the colors. The last was reserved for Newton, who proved that the different colors resulted from different degrees of refrangibility in the rays.

Thus Snell's simple mathematical formula defining precisely the process of refraction proved to be indeed the key which rapidly unlocked the secrets of light.

IV. *Chemistry*

The origin of acoustics as a science hinged upon the discovery of a neglected factor in the undulatory process: optics, in the discovery of an exact mathematical conception of the process of refraction. I wish now to show that the origin of chemistry as a science was due to two precisely similar discoveries, the one disclosing a neglected factor in chemical processes; the other bringing them under strictly mathematical relations.

Simplicity of the Elements. The one great, all-destroying error in Greek research was the universal belief in the elementary simplicity of earth, air, fire and water by a mixture of which all things were made. That plainly is the acme of empiricism—of that fallacy of resemblance which crudely general

izes from a few obvious likenesses and differences. Already in the Middle Ages, as we have seen, the mysticism of the alchemists had begun to subvert this ancient error. The theory of "the three principles" warred against that of the four elements. But the alchemistic views were mainly fantastic and visionary, the wild dreams of a mysticism not balanced as yet by a demand for facts and strict proof.

And so even for centuries after the modern age of inquiry and skepticism had begun, the old Greek belief in the simplicity of the elements—especially of the air—still persisted with an amazing vigor. It was such an easy and cogent fallacy that learned men clung to it despite even the evidence of their senses. For early in the seventeenth century, Van Helmont discovered carbon dioxide and some fifty years later Mayou actually described oxygen under such names as "aerial spirit" and "nitre-air." But the idea of specifically distinct gases was never clear even in the minds of those that produced them. The oxygen which Mayou describes was regarded merely as nitrous particles floating in the air and not as one of its constituent parts. Even so late as 1727, Hales, the first man who had actually seen oxygen disengaged from the atmosphere, was under the same delusion. "The atmosphere," he said, "is a chaos."

Thus oxygen, the most potent, the most universally diffused of all agents in chemical processes remained from century to century a *neglected factor*. It is pitiful to read how many otherwise skillful

experiments made even in the Middle Ages came to naught and how many brilliant discoveries were nipped in the bud by this neglect to take account of the atmosphere or its chief constituent. We marvel at the theory of phlogiston and its revival of Aristotle's absurd doctrine of "levity"; it seems incredible that the most eminent chemists down to the opening of the nineteenth century should have been devout believers in anything so preposterous. My explanation is that so much confusion and contradiction had been introduced into chemical experimentation by this neglect of its chief factor that a sort of mental vertigo had set in, like that of men standing on their heads.

But at last near the close of the eighteenth century a happy thought wanders into the brain of a French chemist, Lavoisier. In the place of this mythical phlogiston and its "negative weight" he substitutes the omnipresent oxygen. And as by magic the confusion and absurdity disappear. Everything becomes orderly and sane. After so long waiting chemistry has become a science.

Elective Affinity. By bringing into prominence this long neglected factor, chemistry had finally become a science, but one of low degree. It still lacked that mathematical quality, that stamp of invariability and predictive power which completes the scientific ideal. Another discovery was needed.

Long before this the ancient theory of things as mere mixtures of the four elements had been abandoned. In the thirteenth century the doctrine of

chemical affinity was announced by Albertus Magnus, and from that time began to supplant the theory of mixtures. But it was a doctrine inexact, metaphorical—a poetic insight on its way to become a scientific truth. Without recounting the successive steps taken we need only to note that after five centuries the movement begun by the mediæval mystic, Albertus, was finished by the Quaker mystic, Dalton. Through the latter's discovery of "atomic weights" or "chemical equivalents," the composition of bodies became capable of precise mathematical determination. Thenceforth chemistry was one of the typical sciences, complete in their foundations, but never in their superstructure.

The genesis of chemistry is due, then, as I claimed, to the removal of two obstacles—neglected factors and inexact conception of natural processes of causation.

V. *The Classificatory Sciences*

So far it seems proved that the origin of the sciences considered was due to the discovery of processes of production so mathematically invariable that the oversight of any factor in such a process is self-revealing. In the classificatory sciences this mathematical exactitude is for the most part unattainable; *but it is no longer necessary*. The processes of gravitation or of chemical composition are hidden: our knowledge of them is inferential, through the comparison of mathematically calcu-

lated with actually observed results. But in the organic world the processes of production are directly presented to observation.

For this reason man early learned to know many species both in the plant and the animal world; but there his knowledge stood still for thousands of years. Only a little more than three centuries ago was any way found for arranging these species into genera, orders, etc. In 1565, Gessner showed how the different species of plants might be systematically arranged, according to characteristics drawn from the processes of fructification. Hence he has been rightly entitled "the inventor of genera." Cæsalpinus developed this view still farther; and another botanist is said to have discovered the distinction between monocotyledons and dicotyledons. Even Linnæus, the famous creator of "the artificial system," seems to have been vaguely conscious that a true classification must rest on something more than mere resemblance. And hence in the deeper part of his systemizing, "he is guided by an unformed and undeveloped apprehension of physiological functions." [12]

This belief in the real unity of natural processes was much strengthened by the poet Goethe's discoveries in the morphology of plants; all parts of the plant except stem and root were so many transformations of the leaf; countless diversities of form and color were products of one unchanging process of production. Then very soon came Von Mohr and Schwann with their revelations concerning the

organic cell, a microscopic particle of matter, yet endowed with contractility, irritability and all the other fundamental properties of life. Then other discoveries all tending in one direction and culminating in the doctrine of evolution. All well-instructed persons now understand that in some simple unicellar organism, an amœba, we may behold the perfect type, an actual, perceptible example of that physiological process by the multiplication of which all the infinite variety of living things is produced.

And one of the most eminent of biologists tells us that the real development of his science has hinged mainly upon this visible disclosure of the physiological process. Only as inquiry, he says, has turned from the highest organisms to study in the lowest the process of life in the concrete has biology in theory and practise made much progress.

Am I not right then in extending this to the genesis of all the sciences? Have I not shown at least concerning the principal ones, that their development has always hinged upon the disclosure of such processes of causation—sometimes so hidden as in astronomy, that they can be verified only by the Infinitesimal Calculus—sometimes openly revealed in living examples as in biology?

Such then seems to me to be demonstrably the true genetic theory of the scientific movement. That movement is the product of two ages. The first age emphasizing causality, extirpated the Greek and savage view of nature as half uniformity and half-

accident; instead thereof it instilled into European thought belief in an Infinite Cause working by absolutely invariable processes. The second or modern age, utilitarian and skeptical, has verified these processes, at the same time ridding them of their mediæval investiture of dream and fantasy.

NOTES

[1] *Positive Philosophy.*

[2] Hoffding's *History of Modern Philosophy* is especially full of this error. See, for example, his account of Galileo.

[3] Dreyer, *Tycho Brahe,* 236.

[4] Czynski, *Kopernik et ses Travaux,* 6 *et al.*

[5] *De Rev. Orb. Coelest,* I. 9, 7.

[6] La Place, *Hist. d'Astronomie,* 94. Also Bethune, *Galileo, 27.*

[7] *Positive Philosophy,* I. 173.

[8] Brewster, *Memoirs of Newton,* I. 34, and 388.

[9] *Ibid,* II. 127.

[10] Whewell, *Hist. Inductive Sciences,* II. 34-36.

[11] Isaac Vossius (*De Lucis Natura*) says he had seen this law in Snell's unpublished treatise, and adds: "Cartesius got his law from Snell, and *in his usual way* concealed it." Huyghens also testified to the same effect. Whewell, *Hist. Ind. Sciences,* II. 56.

[12] Whewell, *Hist. Inductive Sciences,* II. 399.

CHAPTER IV

MODERN ART

I. *Shakspeare and Cervantes*

We made it our fundamental principle in æsthetics that the perfection of art depends upon an emotional balance between the two complementary impulses, the one seeking for causes, the other intent upon results. We have proved our principle in regard to Greek and Italian art. And the same truth shines forth just as clearly in the Elizabethan Age. It was the morning-hour of modern liberty: never was human enterprise more daring or had a wider, more magnificent field for its display. But with all this eager looking forward and this intentness upon practical results, still the mediæval memories were very vivid and had a tremendous power over the popular life. It still remains a disputed point among historians whether England was at heart Catholic or Protestant during the sixteenth century.

The same equipoise characterises the genius of the triumvirate of poetry. No one can surely tell whether Homer was Asian or European. Nor whether the invisible world or this present life was

the real focus in Dante's masterpiece. Nor whether Shakespeare was Catholic or Protestant. In all of them the two tendencies met and mingled like contrasted strains in a musical harmony.

Shakspeare. Note how felicitously these two strains were blended in the genius of Shakspeare. There never was a freer spirit, a more daring innovator, a closer student of reality. And yet he had the mediæval impulse in all its fullness, that conviction of unity—not of mere external order or resemblance—but that inner unity of *dependence* which binds together the seemingly disconnected and incongruous. And so it has become the merest commonplace to say that Shakspeare violates all the external, artificial unities of the Greek drama in order to reach the deeper unity of nature and life.

Just there too lies the secret of his indisputable supremacy as the painter of human individuality. The characters of the Greek drama are at best but general types, often only personified abstractions. Even with Aeschylus the centre of interest is not in the unfolding personality, but in its unhappy environment, its struggles and woes; the essential humanity in Prometheus or Agamemnon is but slightly tinged with true poetic individuality. His successors, are still more engrossed with external unity; everything seems to hang upon ingenuity of plot, pathos and surprise. Euripides especially is a master in startling *effects,* entangled situations, pathetic scenes, anything calculated to keep curiosity on the rack. But the Middle Ages put an appalling

emphasis upon the inner life. Outer circumstances, even "our vile bodies" counted for nothing compared with that conscious unity of power within that went on evolving its good or evil through all eternity.

Shakspeare accepts this mediæval ideal, in its essence. For him human individuality is not a mere bundle of habits or adjectives, but a *cause,* creative, making its own world, not made by it. And even the dullest mind is fascinated and awed by these Shakspearean pictures of personality unfolding towards the infinite.

But Shakespeare is intensely realistic also. A famous critic has objected to his dramas that they contain no heroes.[1] But heroes in Ruskin's sense live only in dreamland. There are countless millions of men and women capable of heroic deeds, but still all come from the common clay. So Shakspeare paints men just as they are as—Herder said—"lusty and sensual, but at the same time longing for a deeper truth and a purer happiness." [2]

Cervantes. Perfect art then is the dim revelation of the harmony underlying the changes and contrasts of life; and one of her favorite means is that sense of humor which finds beauty even in things that seem utterly incongruous and absurd. Shakspeare had this gift of humor in very high degree; but its special representative was his contemporary, Cervantes. Few have drunk deeper from the cup of misery than this greatest of all Spaniards

—captured by corsairs, held a slave in Africa for years, ransomed only to live a life of adversity and to be buried in a pauper's grave. But he had that sense of humor which out of wormwood and ashes distilled a beauty that has ever since delighted the world.

Humor, said one of its greatest masters, is love. Wit is the barbaric delight in *results* that come abruptly, unexpected incongruities, sudden but not serious mishaps. But humor is causal; it reminds us of the mystical forces that bind men together despite their follies and blunders; it transforms the crude cruelty of wit, satire, jest and jeer with the magic touch of sympathy.

We can readily comprehend, then, I think, why Greek and Roman literature with all their glories, were devoid of true humor, never rose beyond satire and biting epigram. We can also comprehend why the world's greatest humorist should have appeared in the latter half of the sixteenth century when the two great tendencies stood so closely balanced in European thought.

II. *The Classical Period*

The era of Shakespeare and Cervantes was soon ended; that delicate equipoise of the two tendencies could not long be maintained. Mediæval memories faded; the modern impulse—intent upon effects, external form, exact imitation—pursued its develop-

ment unchecked. Hence came the so-called classical period in modern literature.

France. This period began earliest in France and there perfected its type in the noble figure of Corneille. Take one of his masterpieces, the Polyeuctes, for example, and note how classical or rather Roman it is; its aim utilitarian, an attempt to glorify religion as it was then understood at Paris; its morality entirely Roman, a self-complacent and showy virtue bent upon being heroic at any cost; its style fashioned after that of Seneca, dignified, a little stilted, addicted to epigram; its characters essentially abstract, personified attributes rather than real men or women. In fact, it is the summit of merely imitative art, brilliant, precise, eager for effects. And yet, as Lessing said: "It is not tragedy. For the impression which French tragedy produces is so shallow, so cold."[3]

England. The English literature of this period follows the French model closely. Even the very form and structure of verse were remodelled. Shakspearean verse—ideal order veiled in seeming irregularity—gave way to the poetry of precision. All is exact and finished. Each couplet stands apart, self-sufficient in its meaning, perfect in its mechanical form. It was a return to Roman "elegance" and the classical delight in rhetoric. "The seer disappeared and the artificer took his place."[4] Such was the age of modern classicism, an age when Gothic art had become a term of reproach,[5] and when famous leaders of thought disparaged the beauties of

the Elizabethan drama as "the bold flights of an undisciplined imagination."[6]

Germany. A German historian declares that "in no other country did pseudo-classic literature reach the same depths of contemptibleness and absurdity as here." But as an alien not permitted to say such harsh things, let me pass on to a brighter though neglected aspect of German thought in that period.

The people are the still depths of the sea; "the upper classes" are the waves and foam upon the surface swept by every passing wind of passion or folly. It was especially so in Germany during those dark days. German belles-lettres were indeed "the most depraved and abject mockery that ever usurped the name of literature." But down in the popular heart there still lingered that old mediæval mysticism that inspired the genius of Luther. Except for a few religious hymns, however, the depths were for nearly two centuries silent until at last they found a sort of spokesman in Klopstock. As Schiller said, Klopstock "makes everything lead up to *the infinite.*" His chief work, the Messias, throbs with religious emotion; but it lacks some of the main essentials of true poetry, is obscure, inflated, unnatural. In fine, he is not a poet but a musician; "his place is by the side of Bach and Händel, the third great master of the oratorio."

So far the Germans. I wish to add only that in this substitution of music for poetry, Klopstock is the fore-runner of the literary movement of the nineteenth century.

III. *The Nineteenth Century.*

With the close of the French Revolution there began a great emotional outburst against that tendency which had ruled the previous three centuries with ever increasing force. The world had grown weary of perpetual protesting and doubt, of an endless insurrection that led to nothing but increase of misery. And so there rose a great reactionary movement—a longing for some golden past. This movement had two phases, of which I wish to speak briefly.

Romanticism. The first phase was a craving for the return of the Middle Ages. One of the best known of the Romanticists, Novalis, has embodied the whole spirit of the movement in his vision of the coming kingdom of "sacred darkness."[7] The lights of science were to be put out and mystery was to reign. A von Schlegel demanded "that astronomy should become astrology again."[8] Another of the same school maintained that the alchemists possessed more of the true scientific spirit than the present day. Even the men of the Renaissance are too modern to satisfy these adorers of the past; "with Raphael and Michel Angelo," says Friedrich Schlegel, "begins the decay of art."[9]

But we need not dwell upon such foolishness. The one thing to be noticed is that these men who imagine themselves in love with the Middle Ages are really modern individualists of the wildest type.[10] They are in open, often vile revolt against almost

everything which the Middle Ages held sacred. In fact, there seemed a sort of craziness about this Romanticism—men conversing with the diseased products of their own imagination and supposing them to be the sages and heroes of the past.

Illusionism. Another ingredient injected into Romanticism was the Hindu doctrine of Maya. Now, I shall not review the discussion concerning the truth of this theory, at least until some one has made some headway against what seems to me the unanswerable argument given in the first chapter of this volume[11]—to wit, that we know nothing of our perceptions except through the spatial and temporal attributes of objects perceived, which attributes, according to Kant, do not exist; in other words, illusionism logically developed is nihilism. My only concern here is to point out the great superiority of the Hindu doctrine over its modern imitation. For, the Vedanta system, with all its vagaries, never flung away the ancient Hindu faith in the moral order of the world; for on Karma, the eternal chain of moral causes and effects it made the whole universe depend; the deeds of souls "demand for their atonement the repeated creation of the universe."[12] Do you say that that is absurd, a silly superstition? I answer that then modern thought in accepting Indian illusionism was so much the more obligated to find a better basis for morality. And that to my knowledge it has never done. Kant merely asserts, without seriously attempting to prove, that morality forms an exception to the universal

illusionism. With Fichte and Hegel ethics have dwindled to politics—inflamed in the case of the former by German hatred for France and Napoleon.

Furthermore, this Romantic subjectivism seems to me in too many cases tainted with insincerity. Familiar words are used—such as God, freedom, immortality, etc.—but the meaning placed upon them is exactly the reverse of the older meaning.[13] This studied ambiguity is certainly pestilential. Honest atheism is infinitely better than pretended piety.

Such then was the literary movement of the nineteenth century—an emotional outbreak against the utilitarian, greedy, skeptical individualism of the modern era. As thus exclusively emotional it was ephemeral and inefficient, without logic, plan or purpose, without deep insight into social causes or sure vision of future results. Necessarily it could accomplish but little. As we have seen even the Romanticists themselves are intensely individualist; they simply chafe against chains which they cannot break.

But the Italian Renaissance was still more wildly emotional, and yet it proved to be the prelude to the Reformation. And in the same way, I think, this romanticism of the last century will prove to be the herald of a still grander reformation in the present one.

IV. *Painting.*

We have seen that Greece gave to the world the first and greatest of all artistic lessons by showing

the infinite capabilities of *form* as a revealer of beauty.[14] It was reserved for the Italian Renaissance and the Modern Age to fully unfold the capabilities of color and of sound.

Rembrandt. It is universally agreed that the resources of painting were very greatly increased by Rembrandt's discovery of the wonderful æsthetic potencies lodged in the light. The movement of art in this respect was closely parallel to that of scientific research where, as we have shown, new sciences have sprung into being through the disclosure of some previously *neglected factor.* Rembrandt, by his marvellous management and focusing of the light in his great masterpieces, revealed what had been virtually as much a neglected factor in painting as the atmosphere was for centuries in chemical experiment. It was his glory to have first divined that "the simplest color is infinitely complex, that every visual sensation is the product of its elements coupled with its surroundings, that each object in the field of sight is but a single spot modified by others, and that in this wise the principal feature of a picture is the ever-present, trumulous colored atmosphere in which figures are plunged like fishes in the sea."[15]

The Beauty of Common Life. Rembrandt made another priceless gift to art by revealing beauty in the life of the poor and lowly. The theme of Greek art is man under extraordinary conditions, a humanized divinity, a hero, an athlete crowned in the games; the beauty which it finds is that of external

or accidental circumstances. But Protestant individualism in its earlier years was very different from the Greek, because it had inherited from the Middle Ages the conviction that even in the lowliest and most squalid conditions of human life there was a certain aspect of divineness like that of golden light raying through the darkness of a dungeon. Rembrandt, a mystic, himself a man of sorrow, saw this beauty of common life as no other painter ever saw it. And it is this dim suggestiveness, this faint gleam of an ineffable beauty amid what would otherwise have seemed low and ugly, which gives to his art its incomparable power of stimulating the imagination and stirring the emotions.

Landscape Painting. We have shown that the mediæval emphasis upon causality—as well as the Indian—had led to the love of nature—a sentiment altogether lacking in classical art. But here, as everywhere else, the Middle Ages were so much engrossed with the cause as to neglect the results. They were so absorbed with religion—with adoration of the infinite and the supernatural—that they paid little attention to those natural processes of causation through which the Infinite Cause is manifested to man. Hence, in art they did precisely as they did in science—left for future ages the searching out, the defining and comprehending of those natural processes of causation which are the real intermediaries between the infinite cause and the finite effects.

So landscape-painting was reserved for the

moderns; not a slavish imitation or photographing of natural things, but the dim revelation of the majesty and divineness veiled in the humblest process of nature. When, for example, a great landscape-painter like Dupré would paint a forest scene he selects "not the great free, broad-armed, vigorous oaks of Brittany, but the poor, little, misshaped, obstinate, sad trees of the arid soil that only half-nourishes. The land is sadder still with its autumn dryness and burnt surfaces."[16] But in that deserted land there is a beauty dolorous and yet divine—very much akin to the beauty in the life of the lowly.

Oil Painting. This development of landscape painting was greatly aided by the invention of colors in oil. Thus the canvas took the place of church-walls, art became less mystical, more domestic, descended to earth and its beauties. Among its technical advantages there was one of supreme importance; it has well been said that "the use of oil colors has given the power of almost unlimited correction." The artist is no longer forced to rely wholly upon the swift, elusive processes of imagination; he can observe the visible results or effects he has achieved, can adjust and rectify them at his will. In fine, Experiment, the very soul of the scientific method, is added to the resources of art.

The Declension of Art. The modern movements in art and that in science, up to a certain point have, as we have shown, the closest parallelism. Both have their sources and their inspiration from the mediæval faith in the infinite, self-sacrificing Cause of all.

During the sixteenth and the seventeenth centuries they move on together, covered with an equal glory. But since then science has still gone on, but art has not even stood still, it has gone backward. How now shall the philosophy of history explain this great difference? From our present point of view the answer is simple and evident. Even after the old faith in the Infinite had decayed, physical science could still verify its predictions and that was all it sought. But without that faith, art was a flower cut from its stem and it has been withering ever since.

NOTES

[1] Shaw, *Dramatic Opinions, II.*, is my authority as to Ruskin's criticism.
[2] Francke, *Hist. German Literature,* 324.
[3] *Hamb, Dramat.,* st. 73. Cf. Francke, *Hist. German Lit.,* 276.
[4] Gosse, *From Shakspeare to Pope,* 221.
[5] Fowler, *Shaftesbury and Hutcheson,* 132.
[6] Dugald Stewart, *Life of Adam Smith,* p. XLVI. Smith thought rhyme above blank verse and placed the French dramatists above Shakespeare.
[7] Brandes, *Main Currents of 19th Century Literature,* II. 194.
[8] *Ibid,* 227.
[9] *Ibid,* p. 138. At the same time Schlegel confesses that he had never seen any of Michel-Angelo's works.
[10] Francke (*Hist. Ger. Lit.,* p. 424-8) very neatly exhibits the antagonism between mediæval and Romantic thought.
[11] *Book* I, *Ch.* I, *Sec.* V.
[12] Deussen, *The Vedanta System,* 20.
[13] Consult McTaggart, *The Cosmology of Hegel* from beginning to end. Also Brandes, *Main Currents,* VI. 14, and Mackintosh, *Hegel,* 260.
[14] *Book* II, *Chap.* IV, *Sec.* II.
[15] Taine, *Lectures on Art,* II. 339.
[16] Potter, *Art of Louvre,* 397-8.

CHAPTER V

SOCIAL EVOLUTION SINCE THE REFORMATION

I. *Modern Liberty*

The fierce, blood-stained dispute concerning liberty which has been prolonged through so many centuries seems now to be crystallizing into a general opinion that human nature is a mixture of two hopelessly antagonistic principles, the one a unifying social or collectivist tendency, the other an isolating individualism. But their hopeless antagonism, I deny sturdily. The problem of their reconciliation can be solved, precisely as we have solved so many other problems—by reverting to the fundamental law of thought. The unifying, organizing impulse is the cause, liberty the result.

Note further that the above generalization is an experimentally verifiable one. The cause and the effect become tests of each other. All history shows that the unifying which leads to bondage is a sham and that the liberty which springs from savage isolation or disunion is a fraud.

Religious Liberty. Let us consider chiefly the second part of the thesis just given, the genesis of freedom from unity. No real liberty is gained by

merely breaking old bonds unless new and holier bonds of unity are substituted in their place. Take the Reformation in Germany for instance. All would have been well if religious liberty could have drawn its strength from a deeper sense of unity, of human brotherhood, of the equality before God of all souls, prince or peasant. But in leaning upon the support of the princelets, making them the arbiters of faith and conscience the Germans merely exchanged one tyranny for a meaner one. Never had there been so little true freedom of conscience, so much sectarian hate, persecution, and bloodshed in Christ's name as in the seventeenth century. And the final result of it reached in the next century was irreligious rather than religious liberty—the mere toleration of indifference.

English Liberty. Continental writers have sometimes scoffed at the English Revolution as a mere struggle for rights of property instead of the rights of man. But that is only blindness to my principle that true liberty and progress spring solely from the substitution of nobler bonds of unity for baser ones. In the first half of the seventeenth century England, like almost every other European land, was a military despotism; brute force ruled both state and church, body and soul. The only effective bond of unity in those divided, distracted times was the royal army. But ever since the opening of the New World commerce had been making great strides; England was growing rich through the trade she had wrested from Italian and German

cities; even her nobility were immensely more commercial than militant, and the middle class or tradesmen were steadily rising in wealth and power. And the English Revolution was the triumph of this commercialism over the old militarism.

I am certainly not over-fond of commercialism. Nevertheless it is a better bond of unity than militarism. Peace is better than war; and it is not so bad even to bribe men as to cut their throats. Of the vices inherent in commercialism we shall speak hereafter; it is enough here to see that the English Revolution verifies our law of progress and liberty.

The French Revolution. Our law is as fully verified by the failure of the French as by the success of the English Revolution. France in the last decades of the eighteenth century was in a state of incredible disunity. Not only was one class arrayed against another but each class was at war with itself. In the church the lower clergy were envenomed against the dignitaries, while the latter looked down with haughty scorn upon their inferiors. The nobility were split into countless clans; in one small town there were thirty-six bodies of nobles;[1] besides there was a chronic quarrel between the newly created and the older nobles as well as between the rural nobility and the courtiers. There was also a bitter antagonism between the city and the country. "Nothing is more striking throughout the eighteenth century," De Tocqueville says, "than the hostility of the citizens of the towns towards the surrounding peasantry and the jealousy felt by the

peasants towards the town people."[2] And in the towns the middle class abused and pillaged the lower orders; according to Turgot they had even found means to so regulate the octrois that the burdens thereof fell not upon themselves but upon the poor. Everywhere division and rancor reigned. There was even a curious contrariety of institutions—constant collision between diverse systems of laws, courts that contradicted each other, conflicting methods of taxation and finance.[3]

Furthermore, commerce in France was limited and had never gained the controlling power which it had in England. Religion and morals also had become very feeble bonds of unity. In fine, there was no real unifying force in French life except that militarism which had been developing for centuries. And so it happened that the French revolutionary movement soon proved to be only this old militarism disguised in new republican forms; and quickly growing tired of its disguise, it glided easily into Napoleonic imperialism.

Comte, Taine and many others have tried to solve the hard problem of the French Revolution as failing on account of its devotion to impossible generalities. But that I deem little less than treason to humanity. Liberty, equality and fraternity may seem far-away ideals at present, but they are not so much beyond us as we think. And I believe that they will begin to draw near when men begin to recognise that unity and true individualism are not opposites or contradictories, but cause and effect.

To make this clearer will be the chief object of our remaining pages.

II. *Supremacy of the Commercial Class*

We turn now from the political or external structure of society to that which most fully expresses its inner life—the industrial movement. And here we are to find the most signal proof that the modern era, like the classical, emphasizes results and neglects causes. For labor is the cause of wealth; that is, it is the human factor in the processes whereby wealth is produced. And this modern age has been ever more and more absorbed in the pursuit of wealth and correspondingly neglectful of the interests of labor.

To prove this we have first to outline the gradual rise of the commercial class to supremacy over the entire industrial movement and thus indirectly over all social and political life. Commerce, of course, is a normal branch of industry having highly important functions to perform. But what we have to show here is an overstepping of these proper functions, an usurpation whereby the trading class has become master of all industry, harvesting its gains and restricting the laborer to a bare subsistence.

The New World. The great maritime discoveries poured a flood of wealth, especially of gold and silver, into Western Europe. Often a single venture with one of the great sea-captains would

convert a petty trader into a merchant prince. Prices rose rapidly. A fever of speculation set in. Bargaining so carefully restricted in the Middle Ages, became wonderfully free; everything was for sale. In England under the Stuarts, the highest places in the peerage could be purchased; four earldoms were sold in a single year for £10,000 a piece.[4] In France even the judgeships were for sale in the open market.

But this growth of commerce brought nothing but calamity to labor. The prices of commodities rose swiftly, but wages remained stationary; in fact often fell. Every effort was made to keep them down; for instance, an old statute against combinations to raise wages, that had been a dead letter for nearly two centuries was revived and enforced with the utmost rigor. These efforts were so successful that by the middle of the seventeenth century the wages of English workingmen were virtually little more than one-fourth of what had been earned by their grandfathers[5] and great-grandfathers.

That single fact gives more insight into the modern social movement than reading a hundred volumes of memoirs. Wealth increasing, but wages virtually reduced to one-fourth of what they had been. Results glorified, but the cause thereof despised and degraded.

Usury. Another great boon to the trading class was the legalizing of usury or interest. The laws against usury in the Middle Ages were not a mere whim of priests and scholastics; on the contrary,

the people heartily approved of them and often fumed against the ecclesiastical courts for being too lax in enforcing them. So late as the fifteenth century we find the English Commons making frequent complaints about this laxity. But suddenly somewhere between the years 1570 and 1595, public sentiment veered around. Henceforth usury was regarded as lawful and right.

I am not so rash as to argue with our modern "economists" who have so ably refuted Jesus, to say nothing about Aristotle, Dante,[6] Shakspeare and almost every other great mind that has expressed an opinion concerning usury. Doubtless usury promoted the prosperity of the usurers; I only object that no effort was made to check its ruinous action upon the common people. The Middle Ages had done this by fostering industrial associations among workingmen, but these the Protestant era discouraged and ultimately destroyed.[7]

And generally not only in the modern but in every age, it is not the ruling tendency in itself which is bad. For example it is well that men should seek after wealth, the storing of God's bounty. The curse lies in that madness for results which makes us forget the true causes—that passion for gathering the harvest in our own private little barns which makes us trample under foot those that have really done the ploughing, the sowing and the reaping.

Agriculture. The agricultural life of Western Europe during the modern era still more vividly evinces this mad greed for gain and crushing of

labor. The mediæval tenures of land were based upon the principle of co-operative industry. The lord with his retainers served by battle and protection, the peasant by tilling the fields. Each had his hereditary rights in the soil and shared in the produce according to his needs. Hardly an acre in Western Europe was held in perfect fee simple. But the Protestant age introduced a new order of things. The lord of the manor began to assert absolute ownership and the peasant or yeoman soon sank to the level of a day-laborer. The English landlords, for example, found it profitable to convert most of the tillage lands into pasture; then only a few of the former cultivators were needed as shepherds, and the rest were driven forth to become involuntary vagabonds. The statutes of Henry VIII. speak of "such a destruction and pulling down of towns that where once were two or three hundred persons there were now but two or three herdsmen." [8] The noblest minds in England inveighed against these evil changes. "It is contrary to the laws of God and man," said Sir Thomas More, "for each to seek his own profit independently of the profit of the commonwealth."

But it was like preaching to the winds. For a phrensy of greed possessed the ruling classes in England. To drive the peasant from his home, they hesitated at nothing—threats, violence, fraud, perjury; if they were convicted of these villainies, they were soon pardoned; and then, as Commissioner Hales declared, "they returned at once to their

vomit." [9] In the meantime Parliament did nothing for the dispossessed peasants except to hound them with harsher laws; if these laws had been fully carried out, we are told, the poor wretches would have been reduced to slavery.[10] And what perhaps is the most notable fact of all even such an eminent "Radical" as Bentham was delighted with this deviltry. He declares himself "enchanted" by "this happy change. * * * Happy conquests of peaceful industry, etc."[11]

German Agriculture. The same dismal revolution went on in Germany. At the close of the Middle Ages most of the German land was virtually in the hands of tenants holding by a perpetual hereditary right, the lords of the soil merely receiving rent or service.[12] This rent was not onerous: in Austria it was restricted to twelve days' work in the year.[13] The tenants are personally free; and "their position is so good that sometimes a poor nobleman gives his daughter in marriage to a rich peasant whose children look upon themselves as half-noble.[14]

But already in the fifteenth century the peasants stood in mortal fear of that Roman law which the princes were striving to introduce as a defense of their despotism.[15] In the next century the blow fell. In 1519 the Bavarian code abrogated the hereditary right of the peasants to their holdings. In Westphalia we find the word slavery first in 1558; serfdom also was unknown before the sixteenth century. In Mecklenburg-Schwerin a decree of 1606 proclaims in Roman parlance that the peas-

ants were not *emphyteutae* but *coloni*—not hereditary possessors but tenants at will—although their ancestors had held the same pieces of land from time immemorial. So everywhere the mediæval system of agrarian partnership was breaking up. The greed of a false individualism was being substituted for the co-operative industry of the Middle Ages.

Manufactures. The inventive genius of man has also been perverted into a means for enormously increasing the wealth and establishing the supremacy of the trading class. By inventions the productive capacity of labor has been wonderfully multiplied; in some cases even a hundred fold. But of this immense increase the laborer has received but a minute fragment; the bulk of it has been diverted into the coffers of the capitalist. The "economists" tell us that the workingmen have also profited, that they now enjoy some comforts denied them in the past. That is to say, the laborer is only a Lazarus, feeding upon the crumbs from Dives' table; let the beggar rejoice, that as the feast of life grows more sumptuous the crumbs become more abundant.

But let these old economic sophistries go. For commercialism itself has already confessed their foolishness. The capitalists have discovered that mere individualism in and for itself means nothing but anarchy and ruin, that it is useful only in so far as it springs from a principle of unity. Hence trade is now swiftly organising itself into those great

monopolies wherein the interest of the individual is the interest of all.

Thus my solution of the much discussed "social problem" is a very simple one. Let labor organise itself as the soldiers have done for thousands of years and as the traders now are doing. To this matter we shall return.

The Growth of Cities. The modern massing of the people in cities is generally ascribed to such incidental causes as the factory system and improved means of communication. No one seems to attend to the fact that this centralization went on even more rapidly during the first Protestant century than since, although then there were neither factories nor railroads. Thus from 1535 to 1660 the population of London increased from 65,000 to 575,000; nearly nine-fold in little more than a century.[16] There has been no such rate of growth since. Furthermore during that period the entire population of England increased only 130,000. The rural regions were being depopulated in order to swell the crowds rushing to London.

Nor was it any true social impulse that thus led men to herd in the cities. They were mainly the poor and oppressed—forlorn peasants driven from their little rural communities and seeking shelter in the crowd. So the swine on a freight car in winter-time pile up together and crush each other—half-frozen beasts seeking for warmth. That men did not thus huddle together from any true social

instinct is further shown by the fact that mediæval civilisation was pre-eminently rural; and yet the mediæval man was through and through collectivistic, "he hardly existed as an individual, but only as a member of some corporate body." [17] And thus, I think, what may have seemed a paradox is fully explained. The growth of the cities at the expense of the country—both in the classical and modern era—was directly due to the increase of commercialism; and commercialism or the greed of gain is the final, most complete expression of engrossment with results.

Nor is there really any economic advantage in this huddling of the workers in the cities but enormous losses and evils. Industry ought to be distributed far and wide where there are coal-fields, water-power, raw material, abundance of food, playgrounds, gardens, forests, pure air and all the joys of nature. But in America, the most modern and "progressive" of countries, the great manufacturing centres are on the barren seacoast singularly devoid of all these requisites for industry and human gladness.

Normal Trade. Finally let it be understood that my induction implies not the least bias against normal trade—the honest exchange and distribution of goods for a fair compensation. The trader too is a laborer and is worthy of his hire. But when he grows so engrossed with pecuniary results that he forgets the other laborers who are the true producing cause, regards them only as means to his

own selfish ends, degrades them into mere tools to be used for his private gain, then he becomes a robber. Furthermore, trade offers far greater facilities than any other industrial pursuit for thus betraying the common interests of labor; with strange prescience language long ago framed the two words, traitor and trader, from the same root. Therefore a class so sorely tempted will always need strict surveillance. We need not, however, go so far as the Middle Ages which seem to have generally concurred with the saying of Freidank, the famous German poet: "Three classes, peasants, knights and clergy, were founded by God; the fourth or trading class were created by the devil." [18]

III. *The Disintegration of Labor*

The modern age, then, has lifted the trading-class into the supreme control and virtual ownership of all industry. Furthermore it has disintegrated labor; first by overthrowing the mediæval organisation of industry, and afterwards by the persistent opposition of the state and the trading-class to every attempt on the part of the toiling multitudes to recover their lost unity.

It is not meant that the modern era has been openly or even consciously hostile to labor and its interests. That, of course, would be an absurd charge. The real sin of the modern age has been one-sidedness and neglect. It has made wealth the supreme and labor only a secondary consideration;

and hence it has not favored and often bitterly opposed whatever did not seem to concur with its ruling passion.

Destruction of the Guilds. Even in its pre-natal period, so to speak, the Protestant impulse seems to have had an instinctive dislike to industrial organization. At least the first known traces of hostility to the guild system are to be found in the writings of the Hussites and other precursors of the Reformation.[19] The same feeling gave rise to that blackest blot upon the fair fame of Luther—his horrible malignity towards the peasants who revolted in order to save their communal rights. He calls them "brands of hell"; urges men "to strike them down, throttle and stab them in secret or in public: They are like mad dogs who must be killed in self-defense. * * * A prince can now deserve mercy better by shedding blood than others by prayer." And years afterward he—a peasant's son himself—wrote: "All their blood is on my head, for I bade that they be struck down; but I put it all onto our Lord God who commanded me thus to speak!"[20]

After the Reformation a similar feeling began to show itself in the spoliation of the guilds and annulment of their charters. In England the craft-guilds perished utterly; only those that had been or were on the point of being transformed into commercial corporations, were permitted to live. Indeed, the only friends of the poorer classes seem to have been reactionaries like the Stuart monarchs for example.[21]

On the continent the guilds preserved the shell of organisation, but their inner life as a brotherhood of toil was destroyed. They were deprived of their autonomy.[22] And that during the Middle Ages had been the crown of their glory and the secret of their power.[23] They lived on as mere instruments through which the government secured control and espionage over industry.[24] Thus the true mediæval guilds vanished. Once they were everywhere. In England up to a comparatively recent period, vestiges of their halls were still visible even in the hamlets of the agricultural laborers.

The Factory System. Then, when the workingmen had been rendered utterly defenseless, the factory system was inaugurated. The ensuing horrors are simply indescribable. As late as 1830 multitudes of weavers, for example, lived in the vilest holes; worked fourteen hours a day and upwards; and earned from five to eight shillings a week.[25] For sixty years in the squalid pestilential alleys of the great manufacturing towns there went on a tragedy of want and pain and woe—of ruin to body and soul—that makes the French "Reign of Terror" seem a very trivial affair. The most damning of all its villainies was the slaughter of the children. Children from five to ten years old were hired out as factory hands by written contract and for long periods. They worked from twelve to sixteen hours a day, "not unfrequently during the greater part of the night."[26] And the most eminent and honored Englishmen seemed to glory in

this shame. Pitt especially used to wax eloquent in describing "the advantages" of infant labor.

But even the worm will turn. And the English Parliament in the latter part of the eighteenth century was forced to spend much thought and care in crushing the combinations of workingmen. For a long time this had been accomplished by means of a forced construction placed upon an ancient statute by subservient judges. Parliament contented itself with now and then enacting a special statute against some particular craft that seemed bent upon uniting for self-protection.

Trade Unions. But at the close of the eighteenth century "out of a population of 8,870,000 in England and Wales not less than 1,234,000 were partakers of parochial relief," or practically were paupers.[27] And a still vaster multitude stood all their lives on the ragged edge of the same pauperism. Workingmen had fallen into such depths of destitution and misery that in sheer desperation they began to multiply fraternities for relief and protection.

The trading class was seized with a panic at the thought of being thus deprived of their opportunities for plunder. And consequently in the year 1799 an Act of Parliament was passed, prohibiting under heavy penalties of fine and imprisonment all combinations of workingmen for an increase of wages. Thus industrial organisation which the Middle Ages had regarded as a religious duty, was condemned as a crime.

Thus again we see the close parallelism between

the modern and the Roman movement. But the infamy of England was greater because she claimed to love liberty while the Romans were honest enough to renounce such hypocrisy.

Still the labor unions were not completely crushed. They managed to meet now and then in subterranean places or some moonless night out on a lonely moor. When the meeting broke up, the records were buried, lest they should be seized by the officers of the law and used as evidence against the unhappy workingmen.[28]

In 1825 this infamous statute was repealed. Other methods of repression had been invented, equally effective and less openly violating those principles of justice and liberty which all England pretended to venerate. Human law has a wondrous flexibility of interpretation; and under pressure from the all-powerful trading class the judges placed new constructions upon ancient statutes. Especially the law against conspiracy was perverted into an engine for the destroying of the labor unions or defeating their righteous aims. Thus harassed by the judges, the trading class and public prejudice, industrial unity made but slow headway.

Nineteenth Century Emotionalism. Already we have pointed out the close parallelism between the Renaissance and the nineteenth century. Each was an era of emotional revolt against the then prevailing tendency; the one against mediæval superstition, the other against modern inhumanity and greed.

The nineteenth century movement undoubtedly

aided the cause of industrial unity, helped to increase the number, prestige and power of the labor unions. But mere emotionalism can never rise very far beyond sentimental vaporing and futile protest; and so the final outcome of the nineteenth century movement seems to have been to divide rather than to unite labor—especially to widen the chasm of suspicion and hostility between the agricultural and artisan classes. For example a recent writer in the supposed interests of the city workers predicts a "revolution" near at hand wherein the farmers will be left "severely alone," until by the pressure of the new regime they shall be forced to give up their lands. Thus the right wing in the army of labor is to gain a great victory by cutting the throats of their comrades in the left wing.

Such projects are born of that low, sordid engrossment with mere results that rules the age. We see in industrial unity nothing but a possible means of pecuniary profit—an expedient that may add a few pennies to the daily wage. We have not begun to comprehend the potencies in it for the education, the deliverance, the uplifting of mankind.

Socialism. The same tendency rules and vitiates the socialistic movement now advancing with such giant strides. New Utopias are being invented almost every day, but under criticism they all dissolve into impossible dreams. How indeed could it be otherwise? Life has become so incredibly complex, that no human genius can forecast the social demands of the future. And even if the plans of the

new social structure were let down to us out of heaven, like the ancient vision of the City of God, where is the power, the unanimity of will, the organised zeal which alone could realize them?

The true solution of the socialistic problem, for the present at least, lies in the organization of industry. Instead of being engrossed with uncertain results, instead of idly dreaming about an unknown future, we must learn to recognise in united labor the mightiest and most majestic of all finite causes. Then we shall have, right at our hands, a power strong enough to cope with all opposition and wise enough to gradually build up a new social structure in the place of the present one which is so visibly honey-combed with injustice, fraud and all manner of iniquities.

Democracy. But may not all this be achieved by a democratic form of government as well as by the organisation of labor? I answer that democracy, except in a vision, has never yet existed on this globe. Instead of it we have had a burlesque—government by parties, that is, by dividing the people into factions swayed by prejudice, noise and humbug, ruled by "bosses" and the trading class. Genuine democracy will never come to this earth except through the thorough organisation of labor. Then each confraternity of toil would become a school for training in citizenship and for the discussion of political affairs, not in the spirit of partisanship but in an atmosphere where everything tended to unity and good will. That divine passion

of loyalty, so strong among the common people, instead of being wasted upon the political parties would be transferred to the universal brotherhood of toil. Every truly human interest, even that of the humblest craft, would find fit expression in the collective will. Then would come true what the Middle Ages first announced and what men have ever since been repeating parrot-like—that the voice of the people is the voice of God.

IV. *The Future*

According to the philosophy of history proved in these pages a new age is about to dawn, one ruled by the mediæval—and Oriental—impulse of causality. Not by any means that we are about to return to the faults and follies of the Middle Ages. Christian regeneration clings to that which is of permanent value in the past; it is "a refiner's fire," purging the dross, retaining the gold.

Now the gold in the modern intellectual movement has been its persistent demand for the defining and verifying of beliefs. Thereby the physical conceptions of the Middle Ages, inaccurate and unproved, resting only upon faith and blind submission to authority, have been replaced by a vast body of exact and demonstrated truth to which we give the proud name of Science. But this very insistence upon exactitude and proof, which has wrought such wonders by the creation of physical science, has had a deadening influence on the moral and spiritual

vigor of the modern age. In the field of ethics and religion there has been the same increasing demand for definiteness and demonstration; but there was none to be found. For the reality of moral obligation the only proof offered has been declamatory appeals to "intuitions," "ethical postulates," or other empty phrases. Thus, as we have seen, the very basis of morality has been gradually undermined. A secret, almost unconscious but deadly doubt has been everywhere diffused, even among the common people. For they, too, in these days read and reflect. They, too, distrust declamation, assumption, poetic metaphors, and are demanding proof. Hence ethical skepticism, once confined to the erudite and luxurious, is spreading among the poor and the oppressed. Who else, indeed, have so many seemingly good grounds as they for doubting the moral order of the world?

And a still greater calamity has strangely issued from this rigid insistence upon proof. It has not only undermined the basis of morality, but it is gradually effacing all distinctions between truth and falsehood. For the followers of Hegel and of Spencer, as well as the so-called Pragmatists, in fact, almost the entire body of present-day "philosophers," seem to unite in teaching that even every physical fact when thoroughly probed proves to be but an "example of that insoluble contradiction which underlies our conception of everything."[29] Protagoras and other Greek sophists preached that doctrine long ago. But in their day there was no vision

of the divine unity, of the Infinite, or even of physical science; so that our modern fall is far greater than theirs, because we have fallen from a far greater height. Is it any wonder then that mendacity flourishes, that the age is fetid with fraud and chicanery?

Such are some of the curious results that have sprung from the modern demand for the strict verifying of our beliefs. Nevertheless, this demand is indispensable and can never cease. It is impossible for us to revert to the blind faith and credulity of the Middle Ages. Man, having once been enlightened, will grow ever more and more unwilling to be convinced by mere authority, sentimentalism or empty phrases. Therefore, if man is to remain moral and human progress is to continue, it is needful to find some impregnable proof for the belief in the moral order of the world.

That great need I believe this volume supplies. For four hundred years there has been a continually decreasing emphasis upon causality, until now for our philosophers the word means nothing but a uniform succession of events. But here I have entered upon a virtually new and untried way, but one prophetic of the new age and the future tendency of civilisation. In other words, I have restored the lost emphasis upon causality. Against Hume I have vindicated the causal conception by proving that it is implicit in all other concepts and that, therefore, its cancelling logically involves the collapse and extinction of all thought.

From that demonstrated theorem, the moral order of the world is but a simple corollary. As has been shown the only complete cause in the strict sense of the term must be an Infinite Cause acting *for the sake of others.* All finite things are effects—factors in processes of causation which have their explanation only in the Infinite. And from this proved existence of an Infinite, loving Cause, the moral order of the world follows as a matter of course.

The emphasis upon causality which is to rule the new age will, then, bring about two grand results: First, it will organize labor, thus lifting it into supremacy above all other finite causes or factors that concur in the production of wealth, and so make possible the reign of justice and peace on earth. Second, it will give to morality a real foundation, a basis that is something more than vaporing and sentimentality. Each of these grand results is indispensable to the other. For, if no such real basis of morality can be found, then all effort for industrial unity and social reconstruction will be in vain. And, on the other hand, if a perfect system of morality should be carven in letters of gold upon the sky, it would have little influence over man, so long as social conditions remain as they are.

SUMMARY

What was promised at the outstart has, I think, been proved—that all thinking is a relating of cause and effect. Thus Hume's famous problem which has

so long barred all philosophic progress, has at last been solved; it has been shown that in the very act of denying causality he is forced to affirm it over and over again. It has been further shown that the only complete causality must be that of the self-sacrificing Infinite; all finite things are but imperfect, partial causes, or rather factors in causal processes. And through that insight the true foundations both of ethical and social science have been revealed.

Is there now any flaw in this argument? If there is, surely some one ought to be able and willing to point it out. If there is not, then a new epoch has opened in the history of human thought.

NOTES

[1] De Tocqueville, *France before the Revolution,* 149, *seq.*

[2] *Ibid,* 80.

[3] Jenks, *Law and Politics in the Middle Ages,* 98. See also Maitland, *English Law and the Renaissance,* p. 66, where Voltaire's well-known sarcasm is quoted that he often changed laws when he changed horses.

[4] Gneist, *Hist. English Constitution,* II. 322. *Note.*

[5] Thorold Rogers, *Work and Wages,* 427. In 1495 an artisan could earn as much in 10 weeks as in a year at the close of the seventeenth century, p. 398.

[6] Dante (*Inferno,* XI. 33) defines usury as "contempt for industry." As usual he pierces to the essence of things.

[7] Gasquet, *Eve of the Reformation.* The guilds of London were saved from the common destruction on the plea that they were only *trading societies.*

[8] Ashley, *Eng. Economic History.*

[9] Pollard, *Factors in Modern History,* 150.

[10] Hobhouse, *Morals in Evolution,* 322. "The historian of the Poor Law declares that with this act the iron of slavery entered into the soul of the English laborer."

[11] Bentham, *Works,* I. 342; VIII. 449.

[12] Jannsen, *Hist. German People,* I. 311.

[13] *Ibid,* 315.

[14] *Ibid,* 313.

[15] The great majority of the professors and champions of the Roman

civil law, both in Germany and France, were Protestants or leaned that way. Notables example are Calvin, Beza and, especially, Melanchthon. See Maitland, *English Law and the Renaisance,* 13 and 56.

[16] Sir Wm. Petty estimated it 1685 at 1,000,000. Sydney, *Social Life in England,* 1660-90.

[17] Brunetière.

[18] Scherer, *Hist. German Literature,* I. 216. This mediæval depreciation of the trading class dates back to the primitive Christians. Hermas (*Mand,* III. 3) speaking of his own life as a trader says: "Never yet in my life have I spoken a true word." See Dobschutz, *Christian Life in the Primitive Church,* 313 and 356.

[19] Schmolders, *Die Strassburger Tucher und Weber Zunft,* 114. A Hussite writer in 1438 says: "Soll das Stadtsregiment wieder gut. Jedermann dem Anderen getreu und die Rath lauter werden so thate man die Zunfte ab." Another writer declares that the autonomy of the Guilds was more of a curse than a blessing.

[20] Henderson, *History of Germany,* I. 321-3.

[21] Unwin (*Industrial Organisation in 16th and 17th Centuries,* 143) gives proof that "protecting the interests of the poorer industrial classes was a real motive of Stuart policy.

[22] Werner, *Gesch. d. Iglauer Tuchmacher Zunft,* 40. "Auch in Iglauer (1527) herrschte nach Niederwerfung des Revolution die Obrigkeitliche Gewalt unbedingt uber den Zünften."

[23] Tagniez, *Etudès sur l'Industrie a Paris au XIIIe et XIVe Siècle* 26. "Les corporations d'artisans etaient independentes jusqu'a un certain point de l'ètat . . . Elles nommaient assez frequement leurs magistrats investis quelquefois d'une jurisdiction professionelle et reglaient leur discipline interieure avec une liberte presque complet, l'autorite publique se contentant generalment d'homologuer leurs statuts." Also p. 276, "Dans cette première periode de leur histoire les corporations parisiennes ne nous frappant que par leurs bienfaits."

[24] Schulze-Gaevernitz, *Der Grossgetrieb,* 34, in Hobson's *Modern Capitalism,* 77. A graphic picture of the politico-commercial control of industry on the continent.

[25] Lecky, *Hist. England in 18th Century,* VI. 220-1.

[26] *Ibid,* 224.

[27] *Ibid,* VI. 206. I quote so much from Lecky because he is so enthusiastic over what he calls "the growing freedom of English industry," p. 237, etc.

[28] Webb, *Trade Unionism,* 57 *seq.*

[29] Mallock, *Reconstruction of Religious Belief,* 263.

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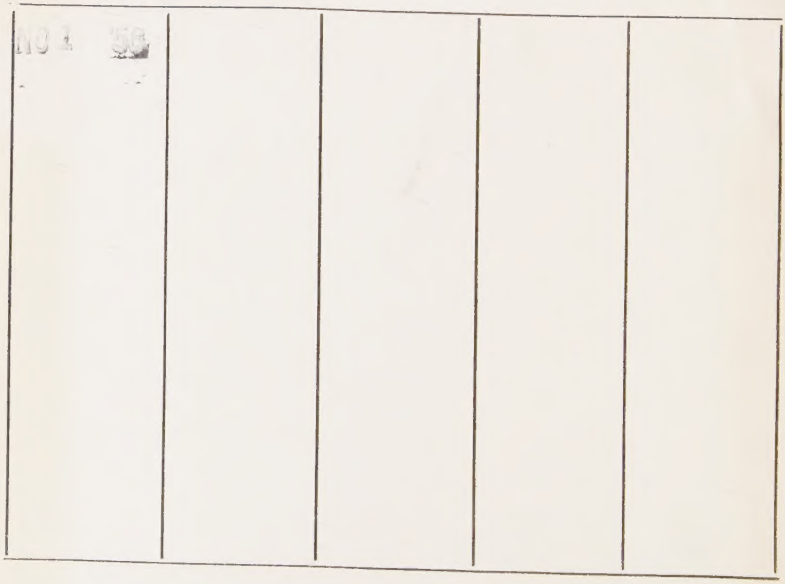

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